S. HRG. 101-1155

NATIONAL RECYCLABLE COMMODITIES ACT OF 1989

HEARING

BEFORE THE

SUBCOMMITTEE ON THE CONSUMER

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

SECOND SESSION

ON

S. 1884

TO PROMOTE THE USE OF RECYCLED MATERIALS DERIVED FROM MUNICIPAL REFUSE, AND FOR OTHER PURPOSES

JUNE 13, 1990

Printed for the use of the
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NATIONAL RECYCLABLE COMMODITIES ACT OF 1989

WEDNESDAY, JUNE 13, 1990

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
SUBCOMMITTEE ON THE CONSUMER,
Washington, D.C.

The subcommittee met, pursuant to notice, at 2:17 p.m., in room SR-253, Russell Senate Office Building, Hon. Albert Gore, Jr., presiding.

Staff members assigned to this hearing: Moses Boyd; and Linda Lance, staff counsels; and Sherman Joyce, minority staff counsel.

OPENING STATEMENT BY SENATOR GORE

Senator GORE. Ladies and gentlemen, good afternoon.

Let me take this opportunity to welcome all of our witnesses and all of our guests. We are starting a few minutes late because of the other hearing that was in this room just before we got started. And we gave them time to clear out and let us set up for the afternoon hearing.

I would like to start by thanking the Committee Chairman, Senator Hollings, for his leadership, and the Subcommittee Chairman, Senator Bryan, for affording this opportunity to discuss a very important subject.

Our focus today, of course, is on recycling. In particular, we will discuss S. 1884, The National Recyclable Commodities Act. I look forward to the comments of our witnesses, and I thank them in advance for sharing their insights with us here today.

Other members of the Committee will be coming over as soon as the vote now in progress on the floor of the Senate has been completed.

America's throw-away society is now beginning to drown in a sea of garbage. We generate over 160 million tons of municipal solid waste each year. More than half a ton per man, woman and child. And the amount is rising steadily year after year.

Population growth is, of course, responsible for some of this trend, but all the studies show that each individual is also generating increasing amounts of waste every year. In an article that appeared in the "Washington Post" on Monday, they identified what is doubtlessly a major culprit in our garbage buildup blues, fancy packaging. From the fruit drinks and pancakes we love in the morning, to the microwavable munchies that folks look forward to in the evening, we increasingly are demanding the convenience of the single-serve, the individually wrapped, bite-size morsel.

What we are only beginning to appreciate, however, is that while these delicacies may take only minutes to consume, our debris left over takes millennia to decompose. I am sure that at least one of our distinguished witnesses will have more to say on this subject, as the Post recognized the great strides that Proctor & Gamble is making on the packaging front.

But of course packaging is far from our only problem. "Discover" magazine reports that every single year we throw out enough writing paper to build a 12-foot high wall from Los Angeles to New York. Every three months we toss out enough aluminum to rebuild every commercial aircraft in the entire country. Each year we discard enough iron and steel to meet the full needs of all three U.S. auto makers. Every hour we throw away 2.5 million plastic bottles. Every two weeks we dump enough glass jars and bottles to fill both towers of the World Trade Center.

Somebody did a lot of research to come up with these statistics, I will tell you that.

What are we going to do with all this stuff?

Historically, we have hauled it off to the landfill. Eighty percent of it, about 130 million tons of trash is put into landfills every year. And as our distinguished garbologist today, Dr. Rathje, will tell us, our rubbish is not disintegrating in those landfills. The Egyptians left mummified royalty. Our legacy will be mummified pizza boxes, mineral water bottles, newspapers, mounds and mounds of newspapers.

As more and more of our landfills reach capacity, and as fewer and fewer new sites are being permitted, our garbage glut approaches crisis proportions. Clearly, we have got a serious problem on our hands. I think everybody is aware of that. But I believe we are also presented with a great opportunity. Recycling offers us a very real and immediate opportunity to make strides toward addressing the many global environmental problems that we face. Global warming, ozone depletion and pollution abatement are all interconnected with the resource conservation that recycling permits.

If we would recycle more than 37 percent of our newspapers, for example, we would not need to cut the 500,000 trees that we fell every week for newspaper production. And recycling polystyrene will reduce our production and use of chlorofluoro carbons. And everyone knows why that is important.

Recycling works. It saves energy. And in the long run it saves money, reduces pollution, and eases the strain that we face from shrinking landfills.

A critical element in successful recycling is missing, however. Cities and towns that have worked hard to initiate successful recycling programs are now finding they cannot get rid of their recycled products because of one simple reason: There are no markets for the recycled products.

I will give you an example. A church group in Sevierville, TN was recently forced to bring an end to their year-old recycling program. They did a great job for their part. The recycling center that purchased the seven tons of paper they collected each week suddenly refused to pick up their paper because the mills could no longer handle the quantities being shipped to them, simply because they could not find purchasers for the recycled product that they were producing.

That is a familiar story to many of the people in this room who have worked in this field.

Well, to remedy this problem and others just like it, S. 1884 is intended to strengthen and expand markets for recycled products. That is really the key.

Specifically, my bill will create demand for recycled commodities by requiring federal agencies to procure those commodities in preference to so-called virgin materials. I have heard the message being sent loud and clear

from communities across the Nation and all over my home state of Tennessee, recycling is an important technology that must be pursued.

We have got 95 counties in Tennessee. About 85 of them right now have a major political issue concerning a new landfill or a new incinerator, or both. And the one thing that all sides of the controversies agree on is that it is time for recycling. That is the long-range answer.

In poll after poll all over America, consumers have resoundingly registered their demand for recycling initiatives. I think S. 1884 can make a valuable contribution. I am committed to working with my colleagues to secure its passage. And I look forward to the comments of our witnesses today.

But, before we go to them, I would like to again express my thanks to the Chairman of the Subcommittee, Senator Bryan.

And, Senator Robb, having arrived first, if you would like to make an opening statement, please feel free.

Senator ROBB. Mr. Chairman, I have no opening statement. I think in fact I am not going to be able to remain for most of the hearing, but I look forward to reviewing the testimony that you take at this particular hearing.

Senator GORE. Thank you, very much.

OPENING STATEMENT BY SENATOR BRYAN

Senator BRYAN. Mr. Chairman, I would like to make a statement and also acknowledge your leadership in this issue. Timing in public life, as in the business sector, is everything. And I believe that the concept of recycling in a much more broadened fashion is an idea whose time has come. And under your leadership, and working with other members on this Committee and the Congress, I believe that we can make major gains.

And I acknowledge and applaud your leadership.

As Chairman of the Consumer Subcommittee, I am well aware of the importance of recycling to our nation. Because of the many problems and dangers associated with landfills and incinerators, recycling has become key to resolving our nation's solid waste problem and preserving our environment.

As we know, recycling faces many problems. There is, of course, the problem of a lack of available markets, and the reluctance of some in the industry to use the necessary materials, and to engage in the necessary programs to help facilitate recycling. There are also the problems of distance to markets, and the high cost associated with recycled products. We will hear testimony today about how communities and local organizations have actually had to abandon their recycling programs because of the lack of markets in their local areas. We have already had before this subcommittee, at a hearing in which I chaired on May 16 of this year, testimony about consumers who want to actively get involved in recycling, but are being discouraged because of confusion in the labeling of products and the different methods required for recycling.

There is no doubt that there is a need for some kind of government action to remove these barriers to recycling. But in order for the government to act, it must also lead by example.

One way the government can help is to create both a dependable supply of reusable paper, as well as a sustainable demand for recycled products. Given its enormous consumption of paper, the Federal government must set the example for creating both supply and demand. To do this, I have introduced the Federal Paper Separation, Recycling, and Waste Source Reduction Act of 1990, a bill requiring Congress and Federal agencies to separate and recycle wastepaper, and to require them to purchase recycled paper products whenever possible.

This makes good sense. Trash disposal costs will continue to increase as old landfills shut down, but a properly run separation and recycling program is a moneymaker. In one agency here in Washington, employees bring reusable items to an office recycling bin, and the proceeds fund an office daycare center. Agencies should be allowed to use proceeds from their recycling program to make these programs self- sustaining and to decrease trash disposal costs.

Buying recycled paper is equally important to these efforts, because no product will be reused unless there is demand for the recycled product. EPA has laid the groundwork for purchasing recycled paper by issuing minimum recycled content guidelines for paper products. The Federal government can build on these efforts by allowing a small price preference for recycled paper. The experience of several states show this to be an inexpensive way to stimulate the demand for recycled goods.

Recycling is too important to the health and security of our nation for us to sit idly by and allow these problems to continue. 1 would like to commend Senator Gore for his efforts in this process and 1 look forward to today's hearing.

Senator GORE. Well, thank you again, Senator Bryan. And my thanks as well to your very excellent staff on this subcommittee.

[The bill follows:]

101ST CONGRESS
1ST SESSION

S. 1884

To promote the use of recycled materials derived from municipal refuse, and for other purposes.

IN THE SENATE OF THE UNITED STATES

NOVEMBER 15 (legislative day, NOVEMBER 6), 1989

Mr. GORE introduced the following bill; which was read twice and referred to the Committee, on Commerce, Science, and Transportation

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A BILL

To promote the use of recycled materials derived from municipal refuse, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "National Recyclable Commodities Act of 1989".

SEC. 2. FINDINGS.

The Congress finds the following:

(1) Each year, millions of tons of municipal refuse materials are recycled into consumer and other goods which are sold or distributed in interstate commerce.

Refuse materials already being recycled include waste paper and paperboard, plastic scrap, discarded tires and other rubber scrap, waste glass, aluminum scrap, spent automotive batteries and other nonferrous scrap, steel scrap, and yard waste. Much greater quantities of these same refuse materials are not currently being recycled, and are instead incinerated, landfilled, or otherwise made unavailable to industries in the United States for the production of consumer and other goods.

(2) Segregation of recyclable materials from the municipal waste stream does not, by itself, guarantee successful recycling. Effective recycling is critically dependent on the existence of adequate regional, national, and international markets for each type of material collected.

(3) By virtue of its significant Constitutional interest in facilitating interstate commerce and its ability to influence the economic climate for business investment in the United States, the Federal Government can and should play a key role in encouraging the expansion of industrial capacity for the manufacture of recycled consumer and other goods, and stimulating and strengthening available markets for recycled goods.

(4) Increased recycling of municipal refuse materials will necessitate the building of new recycling plants

such as secondary paper mills, plastics recycling plants, steel minimills, rubber reclamation facilities, and secondary aluminum and lead smelters. Construction and operation of these industrial facilities will contribute to the expansion of the Nation's manufacturing base, create new employment opportunities for the United States labor force, and enhance the tax bases of Federal, State, and local governments.

(5) By displacing goods and raw materials presently imported, domestic production of recycled goods can reduce the Nation's dependence on foreign supplies of these materials and improve the Nation's balance of trade.

(6) Manufacture of recycled goods is often substantially more energy-efficient than production of comparable goods from virgin materials and feedstocks. As a result, increased recycling will reduce the Nation's energy consumption and lessen the Nation's dependence on foreign energy supplies.

SEC. 3. BUREAU OF RECYCLABLE COMMODITIES.

The Secretary shall establish within the Department of Commerce a separate office to be called the Bureau of Recyclable Commodities. The principal purpose of the office shall be to promote the use of recycled materials derived from municipal refuse. Unless otherwise specified, the office, at the

direction of the Secretary, shall carry out the functions enumerated by this Act.

SEC. 4. ANNUAL STATISTICS ON MUNICIPAL REFUSE AND OTHER MATERIALS.

(a) MATERIALS COVERED.—The Secretary shall gather statistics in accordance with this section for municipal refuse, preconsumer refuse materials, and the following types of materials contained in municipal refuse:

(1) Aluminum scrap.

(2) Lead scrap.

(3) Other nonferrous scrap.

(4) Ferrous scrap.

(5) Plastic scrap.

(6) Rubber scrap.

(7) Waste glass.

(8) Waste paper and paperboard.

(9) Yard waste.

(10) Food waste.

(b) STATISTICS ON REFUSE MATERIALS.—For municipal refuse, preconsumer refuse materials, and for those materials listed in subsection (a), the Secretary shall collect statistics and information on the following:

(1) Quantities of durable goods, nondurable goods, containers, packaging, and other items that are sold or

distributed in commerce and that are likely to become municipal refuse.

(2) Quantities of municipal refuse annually generated by households, office establishments, commercial establishments, and institutional establishments.

(3) Quantities of preconsumer refuse materials annually generated by industrial facilities.

(4) Quantities of materials annually managed using techniques other than recycling, including incineration and landfilling.

(5) Inventories of materials being stockpiled for possible recycling.

(6) Quantities of materials annually recycled.

(c) RECYCLING STATISTICS.—For materials being recycled (as determined under subsection (b)(6)), the Secretary shall collect statistics and information on the following:

(1) Specific recycling techniques employed by industries, and quantities of materials annually recycled using these techniques.

(2) Available markets (including domestic and export markets) for recycled goods, and quantities of recycled goods annually sold or distributed in commerce.

(3) Existing industrial capacity for the manufacture of recycled goods.

(4) Specific techniques employed by households, local governments, and industries to source-separate, collect, transport, stockpile, process, or upgrade these materials for the purpose of recycling, and quantities of materials annually handled using these techniques.

(d) ANNUAL STATISTICS.—The Secretary shall collect and publish the statistics and information required under this section not later than 6 months after the date of the enactment of this Act. At a minimum, the Secretary shall update and publish such statistics and information on an annual basis.

(e) MULTI-STATE REGIONS.—After consultation with the States, the Secretary shall designate not fewer than 6, and no more than 10, multi-State regions within the United States for the purpose of regional data collection. The Secretary shall collect and compile statistics for each of the designated regions.

(f) S.I.C. REVISION.—The Secretary shall revise the standard industrial classification system as necessary to facilitate the collection of statistics and other information on recycling and other related activities, including source-separation, collection, transport, stockpiling, processing, and upgrading of materials for the purpose of recycling. To the extent practicable and useful, the Secretary shall integrate necessary data collection activities required under this section with

periodic surveys of industry or government conducted by the Department of Commerce.

SEC. 5. IDENTIFICATION OF GRADES, SPECIFICATIONS, AND TEST METHODS FOR RECYCLABLE COMMODITIES.

(a) COMMODITY TYPES AND GRADES.—Not later than 9 months after the date of the enactment of this Act, and after consultation with appropriate recycling industries and other potentially affected parties, the Secretary shall identify municipal refuse materials covered under section 4(a) that qualify as recyclable commodities and identify, and, to the extent practicable, standardize the types and grades of those commodities. The Secretary may revise such types and grades from time to time as the Secretary considers necessary.

(b) GRADE DETERMINATION.—To the extent practicable, identification under subsection (a) of suitable grades of recyclable commodities shall be based on—

(1) material grades traded on commodity exchanges or markets;

(2) material grades used as raw materials or feedstocks in the manufacture of recycled goods; or

(3) material grades purchased or accepted for eventual recycling after further source-separation, col-

lection, transport, stockpiling, processing, upgrading, or other handling.

(c) MULTIPLE TYPES AND GRADES.—In identifying the types and grades of municipal refuse materials that qualify as recyclable commodities, the Secretary may assign municipal refuse materials to multiple types and grades.

(d) SPECIFICATIONS.—Not later than 9 months after the date of the enactment of this Act, and after consultation with appropriate recycling industries and other potentially affected parties, the Secretary shall identify and, to the extent practicable, standardize the technical specifications applying to the use of each individual recyclable commodity as a raw material or feedstock for recycling. These specifications shall be revised periodically to ensure continuing conformance to industry standards for recycling.

(e) TEST METHODS.—Not later than 9 months after the date of the enactment of this Act, and after consultation with appropriate recycling industries and other potentially affected parties, the Secretary shall identify and, to the extent practicable, standardize the test methods employed in determining whether refuse materials meet the specifications that apply to each individual recyclable commodity. These test methods shall be revised periodically to ensure continuing conformance to industry standards for recycling.

(f) ADVISORY PANEL.—To support the identification of specifications and test methods for each individual recyclable commodity or class of commodities, the Secretary shall establish an advisory panel consisting of the following:

(1) Representatives of industries currently engaged in recycling of the commodity or class of commodities.

(2) Representatives of other public or private organizations that set specifications or test methods for recycling of the commodity or class of commodities.

(3) Representatives of industries and local governments currently engaged in the collection, transport, stockpiling, processing, or upgrading of the commodity or class of commodities.

(4) Representatives of State governments, consumer organizations, and environmental organizations.

(g) REVISIONS.—Industries or local governments engaged in the collection, transport, stockpiling, processing, upgrading, or recycling of recyclable commodities may petition the Secretary for revision of applicable commodity grades, specifications, or test methods as necessary to prevent or minimize interference with current recycling techniques. Not later than 90 days after receipt of the petition, the Secretary shall either deny the petition or approve the petition and make appropriate revisions to the applicable specifications or

test methods. In making the determination of denial or approval, and in making any revisions resulting from an approval, the Secretary shall consult with the advisory panel established under subsection (c).

(h) RECYCLING ADVISORY.—(1) If the Secretary finds that a physical or chemical property, or contaminant, of a recyclable commodity is interfering with (A) current recycling techniques; (B) marketing of recycled goods manufactured from the commodity; or (C) handling of the recyclable commodity prior to recycling; and is not adequately addressed by applicable specifications or test methods, the Secretary shall issue a recycling advisory to States, local governments, industries engaged in the collection, transport, stockpiling, processing, upgrading, or recycling of the commodity, and other potentially affected parties.

(2) A recycling advisory issued under paragraph (1) shall—

(A) describe the physical or chemical property, or contaminant, contributing to interference with recycling, marketing, or handling of the commodity; and

(B) identify any precautions or measures that may be taken to eliminate or minimize the interference.

SEC. 6. PERIODIC MARKET ANALYSES.

(a) PRICE INFORMATION.—The Secretary shall prepare and make available to the public, on at least a quarterly

basis, a report on prevailing market prices for recyclable commodities. The first such report shall be made available not later than one year after the date of the enactment of this Act. The report shall include price information for both domestic and export markets and for each of the regions designated by the Secretary under section 4(e) of this Act.

(b) RECYCLING RATES.—On at least an annual basis, the Secretary shall determine and make available to the public a report on the prevailing national recycling rate for each recyclable commodity. To the extent practicable, the Secretary shall determine and include in this report the prevailing recycling rates for each of the regions designated by the Secretary under section 4(e) of this Act. The first such report shall be made available not later than one year after the date of the enactment of this Act. For the purpose of making the determinations, materials exported for recycling in foreign nations shall be considered to be recycled. The Secretary shall also consider the extent of commodity stockpiling in determining the recycling rate.

(c) PERIODIC MARKET ANALYSES.—On at least an annual basis, the Secretary shall prepare and make available to the public a report analyzing the technical and economic factors that may influence future foreign and domestic markets for recyclable commodities. To the extent practicable, the Secretary shall also evaluate the factors influencing mar-

kets in each of the regions designated by the Secretary under section 4(e) of this Act. The first such report shall be made available not later than one year after the date of the enactment of this Act. The analyses should consider the following:

(1) Future supplies of recyclable commodities.

(2) Available production capacity of recycling industries.

(3) Strength of existing markets for commodities and potential for development of new markets.

(4) Potential competition from substitute factors of production.

(5) Other market factors identified by the Secretary.

(d) MARKET INDICES.—The Secretary may develop appropriate indices to measure and project market trends for recyclable commodities.

SEC. 7. REPORTS ON RECYCLING CAPACITY.

(a) REPORTS REQUIRED.—The Secretary shall prepare and submit to Congress the following reports:

(1) A report evaluating the potential for expanded recycling of waste paper and paperboard, rubber scrap, plastic scrap, ferrous scrap, and lead scrap.

(2) A report evaluating the potential for expanded recycling of aluminum scrap, other nonferrous scrap, waste glass, and yard and food waste.

(b) CONTENT OF REPORTS.—Each report required by subsection (a) shall include an analysis of the following:

(1) Techniques and systems used by industries and local governments to source separate, collect, process, or upgrade the materials covered in the report, and supplies of materials generated by such techniques and systems.

(2) Adequacy of existing and planned industrial capacity for the manufacture of recycled goods from the materials covered in the report, and opportunities for expanding such capacity nationally and regionally by retrofitting existing industrial plants or building new recycling plants.

(3) Adequacy of existing equipment and facilities for transport of materials covered by the report to recycling plants and markets, and economic and technical barriers to the transport of such materials.

(4) Opportunities for the stockpiling of materials covered by the report that are not immediately remanufactured or reused.

(5) The extent of Federal subsidies (including tax expenditures) and other incentives provided for the manufacture of goods made from virgin materials that compete with goods made from materials covered by the report.

(6) Available options for influencing the timing and extent of private and government investment in—

(A) expanded industrial capacity for the manufacture of recycled goods;

(B) new equipment and facilities for the transport of materials covered by the report and recycled goods to recycling plants and markets; and

(C) new equipment and facilities for the stockpiling of materials covered by the report before remanufacture or reuse.

(c) DEADLINES.—The report required by subsection (a)(1) shall be submitted to Congress not later than 9 months after the date of the enactment of this Act. The report required by subsection (a)(2) shall be submitted to Congress not later than 18 months after such date.

SEC. 8. LABELING OF NONDURABLE GOODS.

(a) IN GENERAL.—The Secretary shall, after notice and opportunity for public hearing, promulgate regulations requiring labeling on recyclability and composition of nondurable goods in accordance with this section.

(b) ITEMS COVERED; DEADLINES FOR REGULATIONS.—(1) Such regulations shall be promulgated not later than 2 years after the date of the enactment of this Act for containers and packaging used to hold food, beverages, soaps,

detergents, cleaning preparations, personal care products, and other items sold in food stores (SIC code 54), liquor stores (SIC code 5921), and drug stores (SIC code 5912). At a minimum, the regulations for such items shall require labels for—

(A) liquids containers holding in excess of 4 fluid ounces; and

(B) other containers and packaging holding materials in excess of 8 ounces by weight.

(2) Such regulations shall be promulgated not later than 3 years after the date of the enactment of this Act for paper and paperboard products sold to office, commercial, and industrial establishments and households by paper and paperboard manufacturers (SIC 26), wholesale suppliers (SIC 51), and retail suppliers (SIC 5943). Such regulations shall require that labels describing the recyclability of paper and paperboard products may be affixed either to the paper or paperboard product, or to the container or packaging in which the product is distributed or sold.

(3) Such regulations shall be promulgated not later than 4 years after the date of the enactment of this Act for other containers, packaging, and nondurable goods, or classes of such items, as determined by the Secretary. In making such a determination, the Secretary shall consider—

(A) quantities of the materials in the items tha are present in municipal refuse;

(B) whether labeling will facilitate additional recycling of the materials; and

(C) the feasibility and cost of labeling to manufacturers.

(4) Regulations promulgated under this section shall take effect not later than 6 months after the date of promulgation.

(c) DETERMINATION OF RECYCLABILITY.—For purposes of determining the type of label to be required on items covered under the regulations, the Secretary shall determine the recyclability of such items, taking into consideration the following:

(1)(A) The demonstrated recyclability of the principal constituent material of such an item. For purposes of this section, the term "demonstrated recyclability" means that—

(i) the principal constituent material of the item is recycled at a rate of at least 10 percent nationwide or across two or more of the regions designated by the Secretary under section 4(e); or

(ii)(I) recyclability of the principal constituent material of the item has been demonstrated by a

successful full scale or pilot scale recycling operation; and

(II) programs for the source separation, collection, transport, stockpiling, processing, upgrading, and recycling of the principal constituent material from such item are planned to be implemented as necessary to achieve a 10 percent recycling rate across two or more of the regions designated by the Secretary under section 4(e) within 3 years after the date of the determination of recyclability under this subsection.

(B) In determining the demonstrated recyclability of items covered under the regulations, the Secretary shall give priority to making such determinations first to items covered by subsection (b)(1), second to items covered by subsection (b)(2), and third to items covered by subsection (b)(3). The Secretary may determine the recycling rate for any individual item (or class of items), but shall not include such item (or class) in more than a single recycling rate determination.

(C) For purposes of identifying the constituent materials used in the manufacture of containers, packaging, and nondurable goods, the Secretary shall distinguish between types of materials based on their physical and chemical properties. For purposes of eval-

uating the recyclability of items composed of plastic, the Secretary shall treat each type of plastic resin as a separate constituent material.

(2) The potential presence of contaminants which may interfere with existing recycling techniques. The Secretary may consider contaminants originally contained in the item, or contaminants introduced during normal use or handling of the item. If the item is composed of multiple materials, the Secretary shall evaluate the separability of the materials. If the materials are found to be nonseparable, the Secretary shall evaluate the recyclability of the item in its entirety.

(3) The need for consistency with grades of recyclable commodities designated by the Secretary under section 5.

(d) LABEL REQUIREMENTS.—(1) Except as provided in paragraph (3), for an item (or class of items) determined by the Secretary to be recyclable under subsection (c), the label shall read "RECYCLABLE _____", with the blank space filled in with the principal constituent material used in manufacturing the item. The label also shall, to the maximum extent feasible, provide information that will assist in the identification of recyclable commodity grades (designated under section 5) potentially produced from the item (or class).

(2) Except as provided in paragraph (3), for an item (or class of items) determined by the Secretary to be nonrecyclable under subsection (c), the label shall read "NONRECYCLABLE BY FEDERAL STANDARDS".

(3) The Secretary may establish an alternative label requirement for an item (or class of items), such as a system of codes or symbols, if such alternative requirement conveys information on recyclability and composition of the item (or class) that is substantially equivalent to the information conveyed by labels otherwise required under this section.

(e) EXEMPTION.—An item (or class of items) may be exempted from labeling requirements if the Secretary determines that labeling will interfere with normal use or handling of the packaging, container, or nondurable good. The Secretary shall not exempt an item (or class) under this section if the trade name of the manufacturer or distributor is included on the packaging, container, or nondurable good.

(f) PETITION TO REVISE.—Industries or local governments engaged in the collection, transport, stockpiling, processing, upgrading, or recycling of recyclable items may petition the Secretary for revision of applicable labeling requirements as necessary to prevent or minimize interference with current recycling techniques. Not later than 90 days after receipt of such a petition, the Secretary shall either deny the petition or approve the petition and make appropriate revi-

sions to the applicable labeling requirements. In making the determination of denial or approval, the Secretary shall consult with the appropriate advisory panel established under section 6(c).

(g) VOLUNTARY RECYCLABILITY SEAL.—Not later than 2 years after the date of the enactment of this Act, the Secretary shall design and publish a standardized, national recyclability seal or symbol to provide further assistance to purchasers in the identification of recyclable packaging, containers, and nondurable goods. Such seal or symbol may be used voluntarily by any manufacturer of an item or class of items determined by the Secretary to be recyclable under subsection (c). The seal or symbol shall be distinct from the label requirements under subsection (d).

(h) ENFORCEMENT.—(1) Whenever on the basis of any information the Secretary determines that any person has violated or is in violation of any requirement of this section, or regulations promulgated under this section, the Secretary may—

(A) issue a recall order requiring the removal of the item from sale or distribution in commerce immediately or within a specified time period; or

(B) commence a civil action in the United States district court in the district in which the violation oc-

curred for appropriate relief, including a temporary or permanent injunction.

(2) Any recall order issued under this subsection shall become final unless, not later than 30 days after the order is served, the person (or persons) named in the order requests a public hearing. Upon such request, the Secretary shall promptly conduct a public hearing. In connection with any proceeding under this subsection, the Secretary may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and may promulgate rules for discovery procedures.

(3) If a violator fails to take corrective action within the time specified in a recall order, the Secretary may assess a civil penalty of not more than $25,000 for each day of continued noncompliance with the order.

(i) MINIMUM CONTENT REQUIREMENTS FOR RECYCLED ITEMS.—Not later than 2 years after the date of the enactment of this Act, the Secretary shall promulgate regulations defining minimum content requirements for packaging, containers, or nondurable goods labeled "RECYCLED" (or words to that effect).

SEC. 9. FEDERAL PROCUREMENT.

(a) GUIDELINES.—(1) The Secretary, after consultation with the Administrator of General Services and the Public Printer, shall issue, and from time to time revise, guidelines

for the use of procuring agencies in complying with the requirements of this section. Such guidelines shall—

(A) designate those items which are or can be produced with recycled content and whose procurement by procuring agencies will carry out or support the objectives of this section;

(B) set forth practices and procedures with respect to the procurement of recycled content and items containing such content and with respect to certification by vendors of the percentage of recycled content used;

(C) provide information as to the availability, relative price, and performance of such content and items; and

(D) establish minimum content standards pursuant to subsection (c) and, where appropriate, pursuant to subsection (d), specifying the level of recycled content to be contained in the procurement item.

(2) In making the designation under paragraph (1)(A), the Secretary shall consider, but is not limited in his consideration, to—

(A) the availability of such items;

(B) the impact of the procurement of such items by procuring agencies on the volume of municipal refuse which must be handled through nonrecycling management methods;

(C) the economic and technological feasibility of producing and using such items;

(D) other uses for such recycled content; and

(E) the impact of the procurement of such items by procuring agencies on recycling and procurement practices of nongovernment entities.

(b) REQUIRED GUIDELINES.—At a minimum, the Secretary shall—

(1) no later than 180 days after the date of the enactment of this Act, modify existing guidelines for the procurement of recycled paper and paperboard goods to include minimum content standards at least as stringent as those specified in subsection (c);

(2) no later than one year after the date of the enactment of this Act, issue guidelines for the procurement and use of waste glass in the construction of highways, roadways, and other paved surfaces;

(3) no later than one year after the date of the enactment of this Act, issue guidelines for the procurement and use of discarded tires and other rubber scrap in the construction of highways, roadways, and other paved surfaces;

(4) no later than one year after the date of the enactment of this Act, issue guidelines for the procure-

ment and use of compost, fertilizers, and other soil amendments made from yard waste and food waste;

(5) no later than 540 days after the date of the enactment of this Act, issue guidelines for the procurement and use of automotive batteries made from lead scrap;

(6) no later than 540 days after the date of the enactment of this Act, issue guidelines for the procurement and use of containers and packaging made from aluminum scrap, ferrous scrap, plastic scrap, and waste glass; and

(7) no later than 2 years after the date of the enactment of this Act, issue guidelines for at least three additional categories of items.

(c) MINIMUM CONTENT STANDARDS FOR PAPER; TARGETS AND SCHEDULES.—(1) The Secretary shall establish standards for the level of recycled material that must be contained in recycled paper and paperboard goods purchased by procuring agencies. Procuring agencies shall meet such standards in accordance with the following targets and schedules:

(A) For fiscal year 1990, at least 30 percent of paper and paperboard goods purchased shall have a recycled content of at least 25 percent.

(B) For fiscal year 1991, at least 40 percent of paper and paperboard goods purchased shall have a recycled content of at least 35 percent.

(C) For fiscal year 1992 and each year thereafter, at least 50 percent of paper and paperboard goods purchased shall have a recycled content of at least 50 percent.

(2) The Secretary may, at any time, establish more stringent targets and schedules for procurement of recycled paper and paperboard goods. In addition, for classes of goods consisting of fine writing and printing paper, the targets and schedules shall allow for the procurement of recycled goods containing manufacturing residues, forest residues, and other preconsumer refuse materials. For all other classes of paper products, the targets and schedules shall require the procurement of recycled goods containing waste paper and paperboard.

(3) For purposes of this section—

(A) the term "manufacturing residues, forest residues, and other preconsumer refuse materials" includes—

(i) dry paper and paperboard waste generated after completion of the papermaking process, including envelope cuttings, bindery trimmings, and other paper and paperboard wastes resulting from

printing, cutting, forming, and other converting operations; bag, box, and carton manufacturing wastes; and butt rolls, mill wrappers, and rejected unused stock;

(ii) finished paper and paperboard from obsolete inventories of paper and paperboard manufacturers, merchants, wholesalers, dealers, printers, converters, or others;

(iii) fibrous byproducts of harvesting, manufacturing, extractive, or wood-cutting processes;

(iv) flax, straw, linters, bagasse, slash, and other forest residues;

(v) wastes generated by the conversion of goods made from fibrous materials; and

(vi) fibers recovered from waste water which otherwise would enter the waste stream;

(B) the term "papermaking process" (as used in subparagraph (A)(i)) means those manufacturing operations up to and including the cutting and trimming of the paper machine reel into smaller rolls or rough sheets; and

(C) the term "fibrous materials" (as used in subparagraph (A)(v) means waste rope from cordage manufacture, textile mill waste, and cuttings.

(d) OTHER STANDARDS.—The Secretary may establish minimum content standards for other items as may be necessary to implement the requirements of this section.

(e) GENERAL REQUIREMENTS FOR PROCURING AGENCIES.—

(1) After the date specified in applicable guidelines issued pursuant to subsection (a) or (b), each procuring agency which procures any items designated in such guidelines shall procure such items composed of the highest percentage of recycled content practicable. In the case of items for which minimum content standards have been established by the Secretary pursuant to subsection (c) or (d), the term "practicable" means that the items procured are, at a minimum, in conformance with the minimum content standards that apply to such items.

(2) The decision not to procure such items shall be based on a determination that such procurement items—

(A) are not reasonably available within a reasonable period of time;

(B) fail to meet the performance standards set forth in the applicable specifications or fail to meet the reasonable performance standards of the procuring agencies; or

(C) are only available at an unreasonable price.

(3) For purposes of paragraph (2)(C), an unreasonable price is one which exceeds by more than 10 percent the price of alternative items.

(4) After the date specified in any applicable guidelines issued pursuant to subsection (a) or (b), contracting offices at each procuring agency shall require that vendors—

(A) certify that the percentage of recycled content used in the performance of the contract will be at least the amount required by applicable specifications or other contractual requirements established by the procuring agency; and

(B) estimate the percentage of the total material used in the performance of the contract which is recycled content.

(5) This subsection applies to the procurement of procurement items designated in the guidelines issued pursuant to subsection (a) or (b) in any case in which the procurement is carried out under a contract in which the purchase price of the item (or group of identical or functionally equivalent items) exceeds $10,000.

(f) PROCUREMENT PROGRAMS.—

(1) Not later than one year after the date of issuance of applicable guidelines under subsections (a) and (b), each procuring agency shall develop an affirmative procurement program which will assure that items composed of recycled materials will be purchased to the maximum extent practicable.

(2) Each affirmative procurement program required under this subsection shall, at a minimum, contain—

(A) a recycled content preference program;

(B) an agency promotion program to promote the preference program adopted under subparagraph (A);

(C) a program for requiring estimates of the total percentage of recycled content used in the performance of a contract; certification of minimum recycled content actually used, where appropriate; and reasonable verification procedures for such estimates and certifications; and

(D) annual review and monitoring of the effectiveness of the agency's affirmative procurement program.

(3) In developing the preference program, the procuring agency shall adopt practices and procedures which are substantially equivalent to those specified in

guidelines issued under subsections (a) and (b). The procuring agency shall establish minimum recycled content specifications which are set in such a way as to assure that the recycled content of the item meets minimum content standards established by the Secretary under subsections (c) and (d), and is the maximum available without jeopardizing the intended end use of the item or violating the limitations of subparagraphs (A) through (C) of subsection (e)(1).

(4) Each procuring agency shall maintain records on types, quantities, and percentages of items made from recycled content which are purchased or contracted for by the agency. The procuring agency shall annually report these statistics to the Secretary.

(g) IMPLEMENTATION.—The Secretary, in cooperation with the Administrator for Federal Procurement Policy, shall implement the requirements of this section. It shall be the responsibility of the Office of Federal Procurement Policy to assist the Secretary in coordinating this policy with other policies for Federal procurement, in such a way as to maximize the use of recycled content.

(h) ANNUAL REPORTS.—The Secretary shall annually report to Congress on actions taken by Federal agencies and the progress made in the implementation of this section.

(i) CONFORMING AMENDMENT.—Section 6002 of the Solid Waste Disposal Act (42 U.S.C. 6962) is hereby repealed.

(j) LEGISLATIVE CONSTRUCTION.—

(1) SAVINGS PROVISIONS FOR REGULATIONS.—A regulation, rule, guideline, or order in effect under section 6002 of the Solid Waste Disposal Act (42 U.S.C. 6962) on the date before the date of enactment of this Act shall continue in effect under the corresponding provision enacted by this section until repealed, amended, or superseded.

(2) GENERAL SAVINGS PROVISION.—An action taken under a provision of section 6002 of the Solid Waste Disposal Act (42 U.S.C. 6962) as in effect on the day before the date of enactment of this Act shall be treated as having been taken under the corresponding provision enacted by this section.

SEC. 10. PROMOTION OF EXPORT MARKETS.

(a) PROGRAM DEVELOPMENT.—In cooperation with the Department of State, the Secretary shall develop a program to promote the export of recyclable commodities for recycling by foreign industries. As part of this program, the Secretary shall gather, and make available to the public, information identifying potential foreign buyers of recyclable commodities.

(b) EXPORT STATISTICS.—To assist local governments and industries seeking to export recyclable commodities, the Secretary shall compile, and make available to the public, statistics and information on the following:

(1) Specific recycling techniques employed by foreign industries.

(2) Available export markets for recyclable commodities.

(3) Specifications and test methods employed by foreign industries to assess commodity quality.

(4) Prevailing prices in foreign markets for recyclable commodities.

(5) Other information on export markets collected by the Secretary under the provisions of this Act.

(c) In cooperation with the Department of State, the Secretary shall develop a program to promote the export of recycled goods produced in the United States, and to the extent practicable and useful, the Secretary shall integrate this program with other existing programs that promote the export of goods manufactured in the United States.

SEC. 11. PUBLICATION OF INFORMATION.

The Secretary shall publish and make available to the public all statistics, market analyses, and other information on recycling or related activities collected pursuant to this Act on a cost-reimbursable basis.

SEC. 12. NATIONAL ADVERTISING CAMPAIGN.

The Secretary shall develop and conduct a national advertising campaign that promotes recycling and the purchasing of recycled goods. As part of this campaign, the Secretary is authorized to publish or publicize recycling rates for specific refuse materials or recyclable commodities, and for specific types and classes of containers, packaging, nondurable goods, or durable goods sold or distributed in commerce.

SEC. 13. UNIVERSITY RECYCLING RESEARCH CENTERS.

(a) RESEARCH GRANTS.—The Secretary shall make grants to accredited institutions of higher education to establish and operate not fewer than 4, and not more than 6, recycling research centers in the United States. The Secretary shall establish these research centers equitably among the regions of the United States.

(b) RESPONSIBILITIES.—(1) The responsibilities of each recycling research center established under this section shall include, but are not limited to, the conduct of basic research relating to—

(A) innovative recycling processes to be employed in the manufacture of recycled goods;

(B) innovative processes to facilitate recycling, including techniques for source separation, collection, transport, stockpiling, processing, or upgrading of recyclable commodities or refuse materials;

(C) specifications and test methods to be employed in assessing commodity quality;

(D) potential end markets for the sale or distribution of recycled goods; and

(E) composition of municipal refuse.

(2) Each research center shall publish and disseminate the results of such research.

(3) Each research center shall carry out at least one project relating to research on the composting of yard waste, food waste, or waste paper and paperboard.

(c) CONTRACTING AUTHORITY.—(1) As necessary to conduct the research identified under subsection (b), the research center may enter into contracts with any of the following:

(A) Persons involved in the recycling, upgrading, processing, transport, stockpiling, collection, or source separation of recyclable commodities or refuse materials, or persons qualified to perform such functions.

(B) State and local governments.

(C) Nonprofit private entities which are exempt from tax under section 501(c)(3) of the Internal Revenue Code of 1986.

(2) Any institution awarding a contract for outside research shall do so in accordance with such procedures and guidelines as the Secretary may require by regulation.

(d) FEDERAL SHARE.—The Federal share of a grant under this section shall not exceed 80 percent of the costs of establishing and operating the recycling research center.

(e) FUNDING PROVISIONS.—(1) No funds made available to carry out this section shall be used for acquisition of real property (including buildings) or construction of any building.

(2) The Secretary shall allocate funds made available to carry out this section equitably among the research centers established pursuant to this section.

(3) Not less than 40 percent of the funds made available to each research center under this section shall be allocated to research projects to be performed jointly by the research center and one or more local governments with demonstrated expertise in areas critical to the conduct of the research.

(f) APPLICATION.—Any institution of higher education interested in receiving a grant under this section shall submit to the Secretary an application in such form and containing such information as the Secretary may require by regulation.

(g) SELECTION CRITERIA.—The Secretary shall select grant recipients under this section on the basis of the following criteria:

(1) The grant recipient shall be located in a State or region that has experienced difficulties with municipal refuse management.

(2) There is available to the grant recipient for carrying out this section demonstrated research resources.

(3) The grant recipient shall have the capability of providing national and regional leadership in promoting recycling as a long-term solution to municipal refuse management problems.

(4) The grant recipient shall have interdisciplinary staff with demonstrated expertise in areas critical to the conduct of research on recycling.

(5) The grant recipient shall have a demonstrated ability to disseminate results of research on recycling.

(6) The projects which the grant recipient proposes to carry out under the grant are innovative and appropriate.

SEC. 14. FEDERAL OFFICE SOURCE SEPARATION PROGRAM.

(a) GUIDELINES.—In coordination with the Administrator for General Services, the Public Printer, and other Federal agencies, the Secretary shall establish a program for the source separation and collection of materials contained in refuse from office facilities of Federal departments, agencies, and instrumentalities. The Secretary shall issue guidelines that—

(1) identify the materials to be segregated and collected;

(2) specify source separation and collection procedures necessary to produce high quality materials; and

(3) establish recordkeeping procedures necessary to determine the quantities of materials collected, and cost savings that result from collection and recycling of these materials.

(b) DESIGNATED MATERIALS.—To the extent practicable, the material types identified by the Secretary under subsection (a)(1) shall be consistent with grades of recyclable commodities designated by the Secretary under section 5 of this Act. Materials segregated and collected by Federal office facilities shall include—

(1) waste paper and paperboard;

(2) waste glass;

(3) aluminum scrap; and

(4) any other material identified by the Secretary.

(c) APPLICABILITY.—Each Federal department, agency, and instrumentality shall carry out a source separation and collection program in accordance with guidelines issued by the Secretary under subsection (a). The guidelines shall apply to each Federal office facility with more than 25 office workers.

(d) SAVINGS.—Any funds received from the sale of collected materials, and any savings in refuse disposal costs resulting from implementation of the program under this sec-

tion, shall be retained by the Federal department, agency, or instrumentality carrying out the program. Any savings retained from refuse disposal costs pursuant to this subsection shall remain available to the retaining department, agency, or instrumentality for 5 years from the date the savings were realized.

SEC. 15. REVIEW OF PRODUCT SPECIFICATIONS AND STANDARDS.

(a) INDEPENDENT ASSESSMENT.—The Secretary may conduct an independent technical assessment of any product specification or standard set by a Federal, State, or local governmental agency, industry trade association, or other standard-setting group that may—

(1) disfavor the use of a recyclable commodity as a substitute for comparable virgin feedstocks or raw materials in the manufacture of the product; and

(2) have a substantial adverse impact on existing or potential markets for the recyclable commodity.

(b) REQUIREMENTS.—In conducting an assessment, the Secretary shall—

(1) determine whether the product specification or standard has the effect of disfavoring the use of the recyclable commodity in the manufacture of the product;

(2) identify those technical aspects of the specification or standard which operate to restrict use of the recyclable commodity; and

(3) evaluate the technical basis for the specification or standard, including those aspects of the specification or standard which operate to restrict use of the recyclable commodity.

(c) CONSULTATION.—In conducting an assessment, the Secretary shall consult with the governmental agency or industry group which established the specification or standard, and other appropriate Federal agencies.

(d) LIMITATION ON REVIEW.—The Secretary may not review specifications or standards established by individual private firms or persons.

(e) PUBLIC FINDINGS.—The Secretary shall publish, and make available to the public, the findings and results from its independent technical assessment.

(f) PETITION.—Industries or local governments engaged in the collection, transport, stockpiling, processing, upgrading, or recycling of recyclable commodities may petition the Secretary for an independent technical assessment of a product specification or standard that satisfies the conditions identified under subsection (a). Not later than 90 days after receipt of such a petition, the Secretary shall either deny the petition or approve the petition and conduct the assessment.

SEC. 16. INTERAGENCY WORKING GROUP.

To ensure that the regulations and guidelines developed under this Act are consistent with actions taken by the Environmental Protection Agency and other Federal agencies, the Secretary shall establish an interagency working group to assist in the development of regulations and guidelines and the collection of information required by this Act. Such interagency working group shall consist of representatives appointed by the Secretary and representatives appointed by the Administrator of the Environmental Protection Agency, and the Secretaries of Agriculture, Treasury, Transportation, Interior, Energy, and other appropriate departments, agencies, and instrumentalities.

SEC. 17. CITIZEN SUITS.

(a) IN GENERAL.—(1) Except as provided in subsection (b), any person may commence a civil action on his or her own behalf—

(A) against any person (including (i) the United States, and (ii) any other governmental instrumentality or agency, to the extent permitted by the eleventh amendment to the Constitution) who is alleged to be in violation of any regulation, guideline, standard, requirement, or order that has become effective pursuant to this Act; or

(B) against the Secretary if there is alleged a failure of the Secretary to perform any act or duty under this Act that is not discretionary with the Secretary.

(2) Any action brought under paragraph (1)(B) may be brought in the district court for the district in which the alleged violation occurred or in the District Court of the District of Columbia. In any action brought under paragraph (1), the district court shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce the regulation, guideline, standard, requirement, or order referred to in paragraph (1)(A), to order such person to take such other action as may be necessary, or both, or to order the Secretary to perform the act or duty referred to in paragraph (1)(B), as the case may be.

(b) NOTICE AND OTHER REQUIREMENTS.—(1) No action may be commenced under subsection (a)(1)(A)—

(A) prior to 60 days after the plaintiff has given notice of the violation to the Secretary; or

(B) if the Secretary has commenced and is diligently prosecuting a civil action in a court of the United States to require compliance with such regulation, guideline, standard, requirement, or order.

(2) No action may be commenced under subsection (a)(1)(B) prior to 60 days after the plaintiff has given notice to the Secretary that he will commence such action.

(3) Notice under this subsection shall be given in such manner as the Secretary shall prescribe by regulation.

(c) INTERVENTION.—(1) In any action under subsection (a)(1)(A) in a court of the United States, any person may intervene as a matter of right.

(2) In any action under this section, the Secretary, if not a party, may intervene as a matter of right.

(d) COSTS.—The court, in issuing any final order in any action brought pursuant to this section, may award costs of litigation (including reasonable attorney and expert witness fees) to the prevailing or substantially prevailing party, whenever the court determines such an award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought, require the filing of a bond or equivalent security in accordance with the Federal Rules of Civil Procedure.

SEC. 18. JUDICIAL REVIEW.

(a) IN GENERAL.—Any judicial review of final regulations promulgated pursuant to this Act shall be in accordance with chapter 7 of title 5, United States Code, except as provided in subsection (b).

(b) EXCEPTIONS.—(1) A petition for review of action of the Secretary in promulgating any regulation or requirement under this Act may be filed only in the United States Court of Appeals for the District of Columbia. Such petition shall

be filed not later than 90 days after the date of such promulgation (or after such date if such petition is for review based solely on grounds arising after such 90th day). Any action of the Secretary with respect to which such a review could have been obtained under this subsection shall not be subject to judicial review in civil or criminal proceedings for enforcement.

(2) In any judicial proceeding brought under this section in which review is sought of a determination under this Act required to be made on the record after notice and opportunity for hearing, if a party seeking review under this Act applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that the information is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Secretary, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Secretary, and to be adduced upon the hearing in such manner and upon such terms and conditions as the court may deem proper. The Secretary may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken, and he shall file with the court such modified or new findings and his recommendation, if any, for the modification or setting aside of his original order, with the return of such additional evidence.

SEC. 19. DEFINITIONS.

As used in this Act:

(1) The term "Secretary" means the Secretary of Commerce.

(2) The term "recycling" means the use of materials derived from municipal refuse as raw materials or feedstocks in the remanufacture of goods sold or distributed in interstate commerce, or the reuse of materials derived from municipal refuse as direct substitutes for other goods sold or distributed in interstate commerce, but does not include use of such materials for energy recovery, or sale or distribution of such materials as fuels or fuel substitutes. Such term does not include source separation, collection, transport, stockpiling, processing, upgrading, or other activities antecedent to, and not integral to, the remanufacturing process used to produce recycled goods or the reuse of such materials.

(3) The term "recycled good" means any material or good remanufactured using materials derived from municipal refuse and sold or distributed in interstate commerce, or reused as a direct substitute for other goods sold or distributed in interstate commerce.

(4) The term "municipal refuse" means any durable good, nondurable good, container, packaging, material, or other item which has served its intended end

use, and has been diverted for recycling or discarded by a consumer, a household, or an office, commercial, or institutional establishment. The term includes aluminum scrap, lead scrap, other nonferrous scrap, ferrous scrap, plastic scrap, rubber scrap, waste glass, waste paper and paperboard, yard waste, and food waste, but does not include sewage, septage, sewage sludge, incinerator ash, used oils, or any mixtures containing these wastes. The term does not include wastes generated by industrial manufacturing processes, or preconsumer refuse materials.

(5) The term "preconsumer refuse material" means any manufacturing scrap or other industrial waste that is similar in composition to municipal refuse and that is diverted for recycling or discarded by an industrial establishment.

(6) The term "aluminum scrap" means any discarded beer, soft drink, or other beverage can, food can, foil or closure, automobile scrap, construction scrap, or other post-consumer refuse material composed of aluminum.

(7) The term "other nonferrous scrap" means any household battery, wire, household appliance, furniture, construction scrap, or other post-consumer refuse ma-

terial composed of a nonferrous metal besides aluminum or lead.

(8) The term "ferrous scrap" means any discarded beer, soft drink, or other beverage can, food can, automobile, household appliance, furniture, construction scrap, or other post-consumer refuse material composed of iron or steel.

(9) The term "plastic scrap" means any food or beverage container or packaging, automobile scrap, construction scrap, or other post-consumer refuse material composed of plastic.

(10) The term "rubber scrap" means any discarded automotive tire, or other post-consumer refuse material composed of rubber.

(11) The term "waste glass" means any discarded beer or soft drink bottle, wine or liquor bottle, food bottle or jar, construction scrap, or other post-consumer refuse material composed of glass.

(12) The term "waste paper and paperboard" means post-consumer refuse materials composed of paper, such as discarded newspapers, books, magazines, printing and writing papers, other commercial printing papers, tissue paper, napkins and towels, corrugated boxes, other paperboard, paper packing, and other refuse materials composed of paper or related

types of cellulosic material containing not more than 10 percent by weight or volume of noncellulosic material such as laminates, binders, coatings, or saturants.

(13) The term "yard waste" means any discarded leaves, grass clippings, tree or shrubbery trimmings, gardening residues, or other similar refuse material composed of vegetative matter.

(14) The term "food waste" means any discarded material composed of food, but does not include any such material discharged to a public or private sewage system.

(15) The term "durable good" means any automobile, household appliance, furniture, equipment, or other item that in normal use is likely to last longer than 3 years.

(16) The term "nondurable good" means any item that in normal use is likely to last 3 years or less, including any paper or paperboard product.

(17) The terms "container" and "packaging" mean any material which holds, wraps, or otherwise encloses a good sold or distributed in interstate commerce.

(18) The term "procuring agency" means any Federal agency that procures goods or services; any agency of a State or a political subdivision of a State

that uses appropriated Federal funds to procure goods or services; or any person contracting with any such agency with respect to work performed under a procurement contract.

(19) The term "procurement item" means any device, good, substance, material, product, or other item whether real or personal property which is the subject of any purchase, barter, or other exchange made to procure the item.

(20) The term "lead scrap" means any discarded automotive battery, construction scrap, or other post-consumer refuse material composed of lead.

(21) The term "reuse" means any cleaning, sterilizing, recharging, retreading, or other reprocessing for use in a similar function by the original manufacturer or distributor, or class of manufacturers or distributors.

SEC. 20. SEPARABILITY.

If any provision of this Act, or the application of any provision of this Act to any person or circumstance, is held invalid, the application of such provision to other persons or circumstances, and the remainder of this Act, shall not be affected thereby.

SEC. 21. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary of Commerce $100,000,000 for each of fiscal years

1 1990, 1991, 1992, 1993, and 1994 to carry out the purposes

2 of this Act.

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Senator GORE. Our first witness is Mr. Alan Dunn, Deputy Assistant Secretary for Basic Industries at the Department of Commerce.

And, Mr. Dunn, without objection, your full statement will be included in the record in full. If you could summarize it for us, it would be appreciated. And also, if you do not mind, please identify the folks that you have brought to the witness table with you, and then go ahead and proceed with your statement.

STATEMENT OF ALAN DUNN, DEPUTY ASSISTANT SECRETARY FOR BASIC INDUSTRIES, DEPARTMENT OF COMMERCE; ACCOMPANIED BY KIMBERLY COPPERTHITE, COMMODITY INDUSTRY ANALYST; AND MARK HAFLICH, OFFICE OF THE GENERAL COUNSEL

Mr. DUNN. Thank you very much, Mr. Chairman. I appreciate the opportunity to discuss the Administration's views on S. 1884.

Senator GORE. Move that microphone a little bit closer, and I think we can hear you better.

Mr. DUNN. Is that better?

Senator GORE. Yes. Thank you.

Mr. DUNN. I have with me Kim Copperthite from the Office of Basic Industries, and Mark Haflick from the Office of General Counsel at the Department of Commerce, who will help me with technical issues that might arise in the question and answer period after giving my testimony.

Senator GORE. Very good. Welcome to all of you.

Mr. DUNN. Thank you again.

Under Subtitle E of the Solid Waste Disposal Act, the Department of Commerce is responsible for: One, publishing guidelines for the development of specifications for classification of materials recovered from solid waste; Two, identifying markets for recovered materials; Three, identifying the economic and technical barriers to the use of recovered materials; Four, encouraging the development of new uses for recovered materials; Five, evaluating the commercial feasibility of resource recovery technology; and Six, exchanging technical and economic data relating to resource recovery activities.

The Department has published guidelines for the development of specifications covering the classification of materials recovered from solid waste. At present, we are working to revise and update the standards, pursuant to these guidelines, via our membership in technical committees of various national standard-setting organizations.

The Department's Office of Basic Industries is responsible for stimulating the recovered materials markets, promoting resource recovery technology and exchanging information relating to resource recovery activities. The office has been actively monitoring the effect of recycling on the primary and secondary industries under its purview. To the extent available we provide interested persons with market technological and statistical data on recycling.

The disposal of municipal solid waste is a major problem facing our country today. Many cities and states are currently experiencing waste management problems because of massive increases in the cost of disposing of municipal solid waste, substantial decreases in the amount of usable landfill space, and difficulty in sitting new waste management facilities.

Because of these mounting environmental and, as you pointed out, political pressures, many states are currently considering a broad range of legislative options to manage better their disposal of municipal solid waste. Among these proposals are some types of mandated recycling programs. The goal of your legislation is meritorious. Greater recycling of materials contained in municipal solid waste offers not only a chance to reduce our reliance on landfills and incinerators, it could also conserve our Nation's precious natural resources.

S.1884 in the Senate and its companion in the House, H.R. 3663, reflect long Committee staff hours spent crafting a broad Federal Government program to foster greater recycling. Nevertheless, the Administration cannot support the bill's enactment in its present form.

S.1884 proposes too broad a Federal program. It would establish a Bureau of Recyclable Commodities within the Department of Commerce charged with addressing the problem through Federal collection of information and statistics, Federal standards, Federal reports, Federal labeling requirements, Federal procurement, Federal export promotion, Federal information dissemination, Federal national advertising campaigns, federally-funded university research centers, and source separation and collection of waste materials in Federal Government offices. In other words, the new Bureau would be responsible for fixing the problem through the conduct of a wide variety of Federal initiatives quite possibly at an expense of $100 million per year.

While some of the approaches proposed in S.1884 may have merit, previous experience has demonstrated that a large Federal role in areas like municipal solid waste seldom succeed, and only do so with great inefficiency. This is not to say that the Federal Government has no role to play in fostering the greater use of recyclables. However, the roles must not be assigned unless they are essential to addressing the problem, appropriate for the Federal Government, and able to be performed effectively.

A cursory examination of the roles specified for the new Bureau indicates some which may not be appropriate for the Federal Government and others which could be better performed by the private sector. For example, creation of a domestic market for recycled goods through a federally-funded national advertising campaign is not an appropriate Federal function, and one at which we are not particularly good. The private sector is a much better marketer than the Federal Government, and if the private financial rewards of recycling are perceived by the private sector, it will conduct the necessary marketing.

Other activities specified for the new Bureau are appropriate for Federal functions. For example, the gathering of information and statistics and identification of markets and uses are traditionally appropriate Federal roles. While the Department already performs some of these functions under Subtitle E of the Solid Waste Disposal Act, we question whether expanding these functions to the extent specified would be worthwhile.

For example, let us focus on data collection. The bill presents a laundry list of required data-collecting. Does the information or data required to be collected even exist? If it does, will those possessing it give it to the Government? Will the collection serve any useful purpose? Would the costs of collection be justified and could they be recouped through sale of the data?

Significant definitional classification and operational issues would have to be resolved between respondents and the new Bureau before reliable statistics could be obtained. While some municipalities and businesses have systems in place that capture information on waste materials, many do not. The availability of foreign data for the development of export statistics is also questionable.

While the Administration does not support enactment of 1884, the bill is a useful vehicle to begin the dialogue on what should be the role of the Federal Government in fostering greater recycling. Much needs to be done before new legislation is enacted. We must be careful to avoid creating a Federal program whose objectives could be fully accomplished by the private sector in the dynamics of an open and competitive marketplace. We at the Department and the rest of the agencies look forward to participating in this dialogue and assisting in any way possible.

I would be pleased to answer any questions that you have.

[The statement follows:]

STATEMENT OF ALAN M. DUNN, DEPUTY ASSISTANT SECRETARY OF COMMERCE FOR BASIC INDUSTRIES, DEPARTMENT OF COMMERCE

Mr. Chairman and Members of the Subcommittee, thank you for this opportunity to discuss the Department of Commerce's responsibilities with respect to recycling and the Administration's views on recycling, in general, and on S. 1884, in particular.

Responsibilities of the Department of Commerce

Under subtitle E of the Solid Waste Disposal Act (42 U.S.C. Sec. 6951- 6955), the Secretary of Commerce is responsible for—publishing guidelines for the development of specifications for the classification of materials recovered from solid wastes; identifying markets for recovered materials; identifying the economic and technical barriers to the use of recovered materials; encouraging the development of new uses for recovered materials; evaluating the commercial feasibility of resource recovery technology; and, exchanging technical and economic data relating to resource recovery facilities.

The Department's National Institute of Standards and Technology, formerly the National Bureau of Standards, has published guidelines for the development of specifications for the classification of materials recovered from solid waste. Presently, it is working to revise and update the standards promulgated pursuant to these guidelines, and to encourage the use of recovered materials in various industrial, commercial, and governmental applications, via our membership in the technical committees of various national standards-setting organizations. The Office of Basic Industries within the Department's International Trade Administration is responsible for stimulating recovered materials markets, promoting resource recovery technology, and exchanging information relating to resource recovery facilities. Because of its impact on raw materials use, the manufacturing process, and commercial and consumer demand for products, the Office has been actively monitoring the effect of recycling on the primary and secondary industries under its purview.

Our industry specialists address recycling concerns primarily within the context of analysis of their assigned industries, and, to the extent available, provide interested persons with market, technological, and statistical data on recycling. The Office has recently published a study on the impact of recycling on the rigid packaging industry and is currently preparing an analysis of domestic and foreign wastepaper consumption prospects and their relation to the disposal of municipal solid waste. The Office is also working with the Environmental Protection Agency (EPA) as it seeks to promote source reduction and recycling as part of an appropriate methodology to improve the management of the country's municipal solid waste.

Solid Waste Disposal and Recycling

The disposal of municipal solid waste is a major problem facing our country today. While problems relating to solid waste disposal are primarily state and local in nature, the difficulties attendant to municipal waste management have drawn national attention because of their pervasiveness. Many cities and states are currently experiencing waste management problems because of massive increases in the cost of disposing municipal solid waste; substantial decreases in the amount of useable landfill space; and difficulty in citing new waste management facilities. Because of these mounting economic, environmental, and political pressures, many states are currently considering a broad range of legislative options to manage better their disposal of municipal solid waste. Chief among these proposals is some type of mandated recycling program.

Recycling has strong appeal for environmentalists and for state and local administrators. Although costs can range from $40 to $100 per ton of material collected, recycling is frequently the lowest cost

alternative for managing municipal solid waste. The costs of recycling are substantially offset because recycling extends the useful life of natural resources by providing an opportunity to reuse materials.

Despite these very positive attributes, recycling is not the sole solution to the municipal solid waste problem, and it is not without its own set of difficulties.

While recycling obviously reduces the amount of municipal solid waste disposed, it is unclear just how much municipal solid waste would be avoided through implementation of a multi-component recycling program or for how long. To be truly effective in reducing the amount of municipal solid waste requiring disposal, a recycling program would have to provide a closed-loop system of reuse or a cycle of continuous reapplication. Otherwise, the program could simply transform one form of waste into another.

The effect of widespread use of recycling on the secondary materials market is another unknown, but it is certain that any increase in the quantity of secondary materials must be accompanied by an increase in the demand for such materials in order for true recycling to occur. Unfortunately, cost, product quality, technologies, and marketplace do not always favor use of recyclables. Secondary materials sometimes cost more than the virgin materials they seek to replace or, are sometimes so cheap and plentiful, that there is no financial incentive for a recycler to handle them or for an end-user to pay to obtain them. Many of the products that consume a relatively high volume of recyclables are low value-added products which have limited demand and which are price sensitive.

Nevertheless, many existing and emerging applications for secondary materials are receiving interest as local, state, and the Federal governments consider the need to stimulate industries and markets that use recyclable materials.

S. 1884

S. 1884 in the Senate and its companion, H.R. 3663 in the House, reflect long Committee staff hours spent crafting a broad Federal Government program to foster the greater recycling of materials contained in municipal solid waste.

The goal of this legislation is meritorious. Greater recycling of materials contained in municipal solid waste offers not only a chance to reduce our reliance on landfills and incinerators, it could also conserve our nation's natural resources.

Nevertheless, the Administration can not support the bill's enactment.

S. 1884 proposes too broad a Federal program to promote the use of recycled materials derived from municipal refuse. It would establish a Bureau of Recyclable Commodities within the Department of Commerce charged with addressing the problem through Federal collection of information and statistics, Federal standards, Federal reports, Federal labelling requirements, Federal procurement, Federal export promotion, Federal information dissemination, Federal national advertising campaigns, Federally funded university research centers, and source separation and collection of waste materials in Federal Government offices.

In other words, the new bureau would be charged with addressing the problem through the conduct of a wide variety of Federal initiatives at the general taxpayer's expense of up to $100 million per year.

While some of the approaches proposed in S. 1884 may have merit, previous experience has demonstrated that unless the Federal role in areas like municipal solid waste is appropriately limited, they will seldom succeed.

This is not to say that the Federal Government has no roles to play in fostering the greater use of recyclables. However, roles must not be assigned unless they are essential to addressing the problem, appropriate for the Federal Government, and able to be performed effectively. We must be especially careful in our scrutiny when a proposed Federal role touches on problems such as municipal solid waste disposal which have traditionally been primarily an area of state and local concern.

A cursory examination of the functions specified for the new bureau indicates some which may not be appropriate for the Federal Government and others which could be better performed by the private sector.

Consider the creation of a domestic market for recycled goods through a Federally-funded national advertising campaign. The private sector is a much better marketer than the Federal Government and, if the private financial rewards of recycling are perceived by the private sector, it will conduct the necessary marketing.

Other activities specified for the new bureau are appropriate Federal functions. For example, the development of procurement guidelines for the purchase by Federal agencies of recycled products, a function already being performed by EPA under section 6002 of the Solid Waste Disposal Act, is an appropriate Federal function.

Likewise, the gathering of information and statistics and identification of markets and uses are traditionally appropriate Federal roles. While the Department of Commerce already performs some of these functions under subtitle E of the Solid Waste Disposal Act, we question whether expanding these functions to the extent specified in S. 1884 would be worthwhile.

For example, let's focus on data collection. The bill presents a laundry list of required collections. Does the information or data required to be collected exist? If it does, will those possessing it give it

to the Government? Would the collection serve any useful purpose? Would the costs of collection be justified and could they be recouped through sale of data?

Significant definitional, classification, and operational issues would have to be resolved between respondents and the new bureau before reliable statistics could be obtained. While some municipalities and businesses have systems in place that capture information on waste materials, others do not. The availability of foreign data for the development of export statistics is also questionable.

The bill fails to provide protection against disclosure of proprietary information that may be collected from private businesses. Without such protection, the new bureau may have a very difficult time in getting private sector data.

Lastly, the time frames for data collection, as well as virtually every time deadline in the bill, are far too short considering the quantity and complexity of the data involved and the absence of mechanisms for the collection of such information.

There are other substantive problems with the legislation. For example, requiring the Federal Government to issue reports identifying Federal subsidies and incentives for the use of virgin materials in the manufacture of goods and to establish minimum content standards for Federal procurement, if not appropriately developed, could have negative international trade implications. Given the current emphasis on market access and the removal of tariff and non-tariff barriers to trade, these provisions must be designed to ensure that they do not have a potentially adverse affect on our negotiating position in the Uruguay and future rounds of the General Agreement on Tariffs and Trade.

While the Administration does not support enactment of S. 1884, the bill is a useful vehicle to begin the dialogue on what should be the role of the Federal Government in fostering the greater recycling of materials contained in municipal solid waste. Much needs to be done before any legislation is enacted. We must be very careful to avoid creating a Federal program whose objectives could be fully accomplished by existing Federal initiatives or the private sector and the dynamics of an open, competitive marketplace.

We in the Department of Commerce, EPA, and other Federal agencies are working on ways to encourage appropriate state and local responses to the municipal solid waste problem and to determine what the appropriate Federal role should be. We look forward to assisting you in this dialogue.

This completes my formal testimony. I would be pleased to answer any questions you may have.

QUESTIONS OF SENATOR KASTEN AND THE ANSWERS THERETO

A. RESEARCH FUNDING

Question: The legislation provides for the establishment of university recycling research programs. Will this recycling research duplicate the extensive paper and wood products recycling program about to be undertaken by the Forest Products Lab? In other words, is the most efficient use of tax dollars to conduct research to promote recycling?

Answer: The Forest Products Lab, in response to current legislative initiatives at the local, state, and Federal levels-which are aimed at achieving higher levels of waste recovery at U.S. landfill sites—has set up a model of the pulp and paper market in order to evaluate the impact of higher rates of wastepaper recovery and recycling on regional pulpwood markets over the next 50 years. The Pulpwood Model, which will project regional pulpwood consumption in North America (United States and Canada) to the year 2040, is very comprehensive in that it will include regional capacity and production by product grade and manufacturing process, long range prices of raw materials and products from the year 2000 to 2040, and regional wastepaper consumption. The raw material commodities being studied will not only include the major categories of wastepaper, but will also survey the different grades of pulpwood, paper, and paperboard; and will also examine the wood pulp grades as a group.

The International Trade Administration is of the opinion that the Forest Products Lab study is oriented differently as compared to the proposed university recycling programs. Nonetheless, some overlap in research effort is probably unavoidable.

Because there are many public and private sector research initiatives currently in-process that cross the spectrum of recyclable materials, a survey of existing research efforts should be undertaken to determine their focus and the availability of their results to the general public before committing to additional Federally sponsored research.

B. UNIVERSITY RESEARCH LOCATIONS

Question: Will equal distribution of research facilities among the regions of the United States actually promote recycling rather than pork barreling?

Answer: Those universities which already play a significant research role or which are situated in high paper consumption areas would seem to be better suited to perform the type of recycling research which is indicated in the legislation. At the same time, research programs should represent as broad a spectrum of the nations's secondary materials consuming public as possible. While political

pressure may be exerted for the concept of equal distribution of research facilities and funding, primary consideration should be given to serving the best interests of the nation through the most efficient and effective allocation of research funding possible.

C. PRIVATE RECYCLING INITIATIVES

Question: There are a number of private initiatives underway to promote recycling. Does this legislation compete with those private initiatives? Is there any way to promote more cooperation between those private initiatives and the federal program envisioned in this legislation?

Answer: Federally-sponsored research initiatives need not compete with those in the private sector, but the far reaching proposals in this legislation will yield some duplication in effort as regards research methodology and goals, especially given that the private sector initiatives are broadly constructed with the goal of discerning potential financial gain. The Federal government should restrict its recycling research and promotion activities to those gaps that are not adequately filled by state, local, and private initiatives.

Senator GORE. Thank you very much, Mr. Dunn.

I am not disheartened to learn that the Administration prefers not to do anything on this, because it does not come as a surprise.

Do you ever watch "Saturday Night Live?"

Mr. DUNN. I have.

Senator GORE. It used to be better about 20 years ago, I thought.

Mr. DUNN. I agree.

Senator GORE. But I was watching it a few months ago with one of my children—that was my excuse. I never watch it on my own—and they had one of these make-believe commercials that kind of trick you into thinking it is a real commercial until a few seconds pass, and you suddenly realize it is a make-believe commercial.

The commercial was for a new consumer product about the size of two of these tables the reporter is working with there, called the Catapulto, and it was based on the old medieval catapults that have the big arm and the basket and the spring-loaded mechanism that would throw boulders over the castle walls, or boiling oil, or whatever.

Well, this was a consumer model that you set on your back patio, and the purpose of it, as this commercial made clear, was when you walk out your kitchen door with your garbage, instead of worrying about recycling, or a landfill, or incineration, you put it in the Catapulto and pull the lever, and whoa, there it goes over the back-yard fence, into your neighbor's yard.

He got rid of his bag of garbage that way, then he emptied the barbecue pit into it, he brought a dead dog out there, and by the end of the commercial his neighbors had all gotten Catapultos, and he looked out his back window and the garbage was just flying everywhere, over the back-yard fences.

I thought it was really funny, and then I stopped and realized, that is our current policy. That is what we are doing with our garbage. Out of sight, out of mind. If you can get it into the next county, great. If you can get it into the next state, all the better. If you can get it on a garbage barge to take an 18-month tour in the Caribbean, that is fine. That is what we are doing now. It is really ridiculous. Do you not think our current policy has gotten completely out of hand?

Mr. DUNN. Your characterization is indeed a drastic one.

Senator GORE. Do you remember that garbage barge?

Mr. DUNN. I remember that.

Senator GORE. That was not on "Saturday Night Live," was it?

Mr. DUNN. It could well have been. To a large extent, there is an awful lot of the shipping of waste to your neighbor going on right now. I think county governments and state governments feel the same way about it, and they are increasingly upset, and justifiably so.

Senator GORE. Do you not think we ought to have a lot more recycling?

Mr. DUNN. We certainly should.

Senator GORE. But you are just not in favor of a national policy on it?

Mr. DUNN. On the contrary, we do have a national policy on it now.

Senator GORE. I had not noticed that. What is it?

Mr. DUNN. Well, as is outlined in the Solid Waste Disposal Act, there are a number of efforts we are undertaking at present to encourage recycling, to identify the macro and microeconomic forces for industry so that they can appreciate better how they can make money recycling.

Senator GORE. Have you decided whether it is a macro or a micro problem yet?

Mr. DUNN. I think it is both, clearly.

Senator GORE. I think it is macro trouble right now, and I really do believe we need a national policy, because I think it is a national problem.

Down in Mitchellville, TN, right on the Kentucky border, a few weeks ago there were three great big box cars full of garbage from New York City, dripping on the railroad siding there, and one of the women in the town—Mitchellville is just a few hundred—she was quoted in the newspaper as expressing concern, because she said I just cannot believe those germs in there are saying, now you know we cannot leave this box car. We have got to stay right here.

Somebody nearby had agreed to let it be dumped on his farm for some minimal cost per box car, and I do not want to single out New York City. It seems to get singled out a lot on this. But cities all over the country are facing the same problems, and garbage is fanning out from urban areas and smaller cities, too.

I was up in Vermont, making a speech at their law school a few months ago, and they had organized vigilante squads—they did not call them that, but that is what they were—to patrol the rural roads to have sittings of trucks full of garbage coming from south of there to dump it in the hills and hollers.

Now, this is the result of inaction on the part of the Federal Government. I do not want to put all the blame on the Administration for this, because obviously it is a problem that has arisen all over the country over a period of time, but the lack of a Federal policy to deal with this problem has exacerbated the trouble that everybody is in.

Now, you have said some nice things about some provisions in this bill, and you will oppose other provisions, but let me ask you for your assessment. Do you believe that this legislation would increase the market demand for recycled commodities?

Mr. DUNN. I am not confident that it would increase the market-driven demand for recycled materials. I think instead what it may do is impose such additional cost on users of these materials that they would then recycle more than they are doing now, or pay the additional prices for what will certainly be more expensive landfills.

Senator GORE. Well, you are going to have a lot more purchasing of recycled commodities, are you not, under this act?

Mr. DUNN. We are seeing greatly increasing purchase of recycled materials already under our current policies.

Senator GORE. Well, we will have ten other witnesses, and based on my reading, my preliminary reading of their statements, we found as representative a group as we could find, and none of them seem to agree with you. The real experts and experienced people in this field just do not seem to agree with you.

RCRA, which you point to, is not providing a national policy. Since 1982, Commerce's unit on recycled materials has been defunct. Is that not right? Did not former President Reagan eliminate the Commerce Department's unit on recycled materials?

Mr. DUNN. No. As a matter of fact, a Department of Commerce Organization Order transferred most of the responsibility from the then National Bureau of Standards, which is the now the National Institute of Standards and Technology, to the International Trade Administration in an attempt to make this a more market-driven exercise. The National Bureau of Standards remain responsible for undertaking identification of certain classifications and standards that should be used and technologies that could be applied.

I am not trying to suggest that there is sufficient recycling at this point at all.

Senator GORE. Now, wait a minute. I do not want the record to inadvertently mislead someone who reads it into thinking you are giving a tricky answer on that last question. Does the Office of Recycled Materials still exist, or not?

Mr. DUNN. There is no office entitled the Office of Recycled Materials.

Senator GORE. It was eliminated, was it not, by former President Reagan?

Mr. DUNN. I do not know who eliminated it, but the responsibilities, as I said, were transferred.

Senator GORE. Who was president when it was eliminated?

Mr. DUNN. Clearly, President Reagan was the president at the time the responsibilities were changed.

Senator GORE. I just wanted to pin you down on that, and there is no money for the Office of Recycled Materials any more. It is all cut out, is it not?

Mr. DUNN. The International Trade Administration generally has only one line item appropriations amount and the responsibilities are delegated allotted funds, but not specific line item appropriations.

Senator GORE. What does the International Trade Administration do on recycling?

Mr. DUNN. Well, one of the things we do within the ITA, and specifically within my Office, is study markets that already can be identified, look for the economic forces which will encourage recycling, look at the recycling rates in a whole host of industries where we have numbers that we can already get our hands on.

Senator GORE. How many people do you have working on recycling?

Mr. DUNN. All of the industry analysts within my group work on recycling to the extent that it focuses on their own industry.

Senator GORE. I see. Do you have anybody who specifically works on recycling as their primary responsibility?

Mr. DUNN. Yes, I do.

Senator GORE. Who is that?

Mr. DUNN. I have brought the person, Ms Copperthite, with me.

Senator GORE. Good afternoon. How are you? What do you do on recycling?

Ms. COPPERTHITE. The latest thing I could cite as a particular item was a publication that looked at recycling within the context of the rigid packaging industry, metal cans, glass containers, and plastic bottles.

Senator GORE. Did you write that?

Ms. COPPERTHITE. Yes, I did.

Senator GORE. Could you give us a copy of that? I would like to see it.

Ms. COPPERTHITE. Certainly.

Senator GORE. Do you work full time on recycling?

Ms. COPPERTHITE. Since January I would say I have been spending about 90 percent of my time on recycling.

Senator GORE. Since January of this year?

Ms. COPPERTHITE. That is correct.

Senator GORE. What did you do before then?

Ms. COPPERTHITE. Predominantly the rigid packaging industry.

Senator GORE. You were in the rigid packaging industry?

Ms. COPPERTHITE. I was an analyst for the rigid packaging industry. I continue to do analysis on that industry, but I spend the bulk of my time devoted to recycling and related issues.

Senator GORE. Okay.

Who else do you have on recycling?

Mr. DUNN. Well, I have a whole series of industry analysts who look at it within the context of—

Senator GORE. Who else do you have who spends the majority of his or her time? Anyone else?

Mr. DUNN. Yes.

Senator GORE. Who?

Mr. DUNN. I have two Ph.D. scientists in my own office that report to me, who are working on environmental issues broadly.

Senator GORE. Do they work primarily on recycling?

Mr. DUNN. A large component of their time, 40 to 50 percent.

Senator GORE. Do they work a majority of their time on recycling?

Mr. DUNN. Probably only about half.

Senator GORE. Okay.

I do not want to stretch it out, but that is not really a national policy, is it? I mean you have got one person who works on recycling. You have got a couple of Ph.D.s who do some work on recycling, maybe as much as half their time. And what they do is study the market trends. Is that fair to say that is what they do?

Mr. DUNN. And technology.

Senator GORE. And technology.

Mr. DUNN. Recycling technologies, for example, in particular.

Senator GORE. Okay.

Well, the Office of Technology Assessment did a report on this. And they said, and I quote, "Specific actions regarding municipal solid waste are likely to be more effective if they are delineated in the context of a coherent, comprehensive approach for the Nation. And this can only be done if a national policy for municipal solid waste is established."

And then they went to the bold type and emphasized the following statement, "Congress can provide strong leadership by stating a clear national policy for municipal solid waste."

And then they went on to recommend many, if not most, of the exact provisions that are included in this legislation.

How come you disagree with the Office of Technology Assessment?

Mr. DUNN. Well, I think we are talking about two different things. I believe we have a national policy. The issue we are trying to address here is what level of resources should we be devoting toward the implementation of the policies identified.

I think that there are considerably more things we can do in more industry areas, but that our policy is well-directed at present to undertake the type of activities that the government is well-suited to perform, and may be able to stimulate industry to undertake a physical recycling in a great deal more industry areas and materials areas.

Senator GORE. You point out that, in your opinion, and I am quoting from you, "Significant definitional classification and operational issues would have to be resolved before reliable statistics could be obtained."

I agree with that. Indeed, one of the principal purposes of the legislation is to gather just the type of information that you recognize is lacking and that is critical to the success of recycling. That is one of the things we do in this bill.

Is it your opinion that we should be content with the status quo, even though that means that recycling may not be successful?

Mr. DUNN. We should not be satisfied with the status quo in any way at present. There is much more that we can do and intend to undertake. I think that many of the principal purposes in the bill are helpful and provide good direction, and we would like to work with you to refine those in such a way that they can be adopted in a fiscally responsible as well as policy responsible way.

Senator GORE. I will take that. I believe that is about as far as we are going to get. But I appreciate that. I would make one other comment, and I do not mean it in an unkind way, but I honestly believe that the approach of the Administration to have two or three people studying market information is not a national policy. And the problem is so severe, anybody in any municipality in this country can tell you they are just drowning in garbage.

We need a national policy. We need a national initiative, focused on solving the problem. And that is what this bill is intended to provide.

We appreciate your testimony.

OPENING STATEMENT BY SENATOR GORTON

Senator GORTON. Senator Gore, thank you very much for that recognition.

I do have an opening statement, which I am going to make, because some of it is directed to these Department of Commerce witnesses.

First, I think you are to be commended, as I find myself doing so often, for your pioneering work in drafting this piece of legislation, which I think is of great importance.

In Washington State we have some of the most aggressive municipal recycling and solid waste reduction programs in the country. At my home in Seattle, for example, we separate three different recyclable types of commodities from our normal garbage and keep them in separate containers. And if I may say as, I think in this case an average citizen, one feels sort of good about doing that when required to do so.

In fact, the City of Seattle and King County have gotten national recognition and awards for these programs. But they lead to a problem, a very serious and not unique problem to our state. The supply of recycled materials far outstrips the demand and the market for the materials. There is simply a gap in our present system. Society has decided that recycling and waste reduction are worthy goals. Inventors and entrepreneurs have not yet invented and marketed enough products to match the supply of recyclable materials.

The plain fact is that society will pay the cost of solid waste collection and disposal one way or another, however we deal with it. In my view, it is a perfectly appropriate role for the Federal Government to work to assist the market system to develop in this connection.

After listening to the concerns of people involved in solid waste and recycling processes, my staff and I began several months ago to study options about what could be done at the federal level to encourage markets for recyclable materials and encourage the use of recycled products.

You obviously were walking down the same path and finished drafting a bill earlier. I have signed on as a cosponsor to this legislation, and I am enthusiastic about it, because we do share these goals, and we share a feeling of the importance that these goals be met as quickly as we possibly can.

I understand that during the course of the hearing there will be some technical concerns with the legislation from several groups, and I know you and I join in considering any of those technical changes whenever they are consistent with the primary goal of the legislation.

I have heard what the witness from the Department of Commerce has said, and I would like for the representative of the Department of Commerce to take back our bipartisan concerns with the relatively low level of commitment the Department and the Federal Government have made to this process. He should express to his superiors what I think should be the philosophy of this Administration. It should deal constructively with an environmental problem, which I am convinced is solvable or at least one to which we can approach a solution more rapidly and more dramatically than we can to many others in a relatively short period of time, is very, very important.

The Commerce Department fulfilled this leadership role until budgetary constraints came on in the early 1980s. And it seems to me appropriate that the Administration, at levels understandable higher than those of the witness before us, reconsider its position in this whole field, and not be a drag to the process, but become enthusiastic supporters of it.

Senator GORE. Thank you, Senator Gorton.

It is amazing how many things we do work together on and take the same approach on. And I am honored to be able to work together with you on this subject—truly I am.

And let me second the sentiments you expressed about the openness with which the sponsors of this legislation view the potential for technical changes of the kind some of our witnesses will suggest. In many cases, the intent of the legislation is to do exactly what the people offering suggestions want, and we are very open to changes that clarify the intent and make sure that it does what we are trying to have it do.

So we will work together very closely on this.

And, Mr. Dunn, thank you and your colleagues very much for coming and getting us off to this start today. We appreciate it and wish you well.

We would like to now invite panel one, led off by our distinguished garbologist, Dr. William L. Rathje—I am sorry Landfill Archeologist, with the University of Arizona, Department of Anthropology in Tucson; Mr. Allen Hershkowitz, Senior Staff Scientist with the National Resources Defense Council in New York; Ms. Susan Birmingham, Environmental Lobbyist with U.S. Public Interest Research Group; Ms. Mary Gattis, Associate of The Stewardship Group in Nashville, TN, and a good friend—I can vouch for her effectiveness on this issue; and Ms. Alair MacLean, with Fiber Recovery Unlimited, here in Washington, DC.

We welcome all five of you to the hearing room and the witness table. We are really glad you are here. As is our custom, we will put your complete prepared statements into the record in full—without objection, that is.

And we will go in the order in which I read your names off.

If you can summarize your statements, that would be helpful, but we are delighted to have all of you.

And, Dr. Rathje, you have done amazing work in this field. And I have had an opportunity to learn from you by way of the electronic media from time to time, and we really do look forward to your lead-off statement for this panel.

STATEMENT OF DR. WILLIAM L. RATHJE, LANDFILL ARCHEOLOGIST, UNIVERSITY OF ARIZONA, DEPARTMENT OF ANTHROPOLOGY, TUCSON, AZ

Dr. RATHJE. Thank you, Senator. All archeologists study garbage. I am an archeologist but with one difference. While my colleagues excavate old refuse to learn about ancient civilizations, I prefer to dig into modern landfills for fresher data. I am studying our buried refuse because the United States is in a widely proclaimed garbage crisis. Across the country 80 percent of our trash is being deposited in landfills, the largest garbage middens in the history of the world.

Digging into them may seem to be a nasty job, but some archeologists had to do it. Using extended arm backhoes and bucket augers, they can excavate to a depth of 97 feet. The University of Arizona's garbage project has now sampled nine landfills across the country, two in Arizona, two in California, two in Illinois, two in Florida and Fresh Kills, New York City's landfill on Staten Island. I apologize about Tennessee.

Senator GORE. You are welcome any time.

Dr. RATHJE. That is usually our position, all right.

I am here today to comment on the National Recyclable Commodity Act of 1989 by way of the 12 tons of raw realities we have excavated in these digs. For decades, most people have trusted that our organic wastes are busily decomposing inside landfills, making room for more refuse; but even our most treasured beliefs can be wrong. As we began to analyze the trash, we noticed that in landfills so-called perishables survive for a surprisingly long time. I remember a mound of guacamole thrown away in 1977——

Senator GORE. Come on.

Dr. RATHJE. In a dish. I have a picture of it. It will be in National Geographic in November.

Hot dogs discarded in 1972; nitrates really do preserve things.

Leaves raked up in 1964; construction lumber sawed up in 1956; and newspapers, stacks and stacks of them. Headlines, stories and dates bring back our PAST. "Apollo Orbits Moon", February 30, 1971; "Customs Men Bar Hippies To Cut Mexican Dope Flow", October 18, 1967; and "Hint Dropped By Truman Suggests He May Not Be Candidate for Pres", January 8, 1952. Together, these newspapers form a chain of evidence that indicates that in landfills organics do not biodegrade as quickly as we would like.

This conclusion is important because newspapers and other paper items occupy the lion's share of landfill space, about 50 percent in recent refuse. Food and yard waste, construction wood and other organics raise this total to 70 percent of landfill volume.

Given what seems to be mummified landfills, I believe that if we are to preserve both our environment and our lifestyle, the direction to take is recycling. Recycling is important because the most obvious difference between landfills and Arizona, California, Illinois and Florida is in the quantity of recyclables that are buried. Where markets and programs combine, recyclables are noticeably reduced.

There is one problem with our newfound recycling ethic. Many people misunderstand a basic recycling reality. All of my friends in Tucson, Arizona proudly tell me that they recycle their newspapers, but not one of them does. They separate their papers, they drop them off at buyback centers, they put them out at the curb. Not one of them owns a multimillion paper recycling mill. Such recyclable investments require markets, someone to buy the recycled paper products. I look around this room and I say to myself, who pushes more paper than the Federal Government?

I applaud your entire bill, but I am especially pleased that you properly position the horse to pull the cart. First you deal with Federal procurement and only then with Federal source separation.

There is just one implication of your bill which I find personally disheartening. As recycling increases, future landfill archeologists will find fewer newspapers to tell your story. While on paper the Apollo, hippies and Truman lie in wait for posterity, I assume your goal is complete archeological anonymity.

Thank you.

[The statement follows:]

STATEMENT OF DR. W. L. RATHJE, DIRECTOR, THE GARBAGE PROJECT, BARA/ANTHROPOLOGY PROFESSOR, DEPARTMENT OF ANTHROPOLOGY, UNIVERSITY OF ARIZONA, TUCSON, AZ

All archaeologists study garbage. I am an archaeologist, but with one difference. While my colleagues excavate old refuse to learn about ancient civilizations, I prefer to dig into modern landfills for fresher garbage.

I am exhuming our refuse for study because the United States is in a widely proclaimed "Garbage Crisis," and across the country 80 percent of our trash is being buried in landfills--which are mountains, not molehills. When I was a graduate student, I was told that the largest monument ever built by a New World civilization was the Temple of the Sun, constructed in Mexico around the time of Christ and occupying 30 million cubic feet of space. Durham Road Landfill near San Francisco is two mounds compiled since 1977 solely out of cover dirt and the municipal solid waste (MSW) from three California cities. I can still remember my shock when my students calculated that each mound was 70 million cubic feet in volume, a total of nearly five Sun Temples.

Landfills are clearly the largest garbage middens in the history of the world. Digging into them may seem a nasty job, but some archaeologist had to do it!

Using extended arm backhoes and bucket-augers that can excavate down 97 feet, the University of Arizona's Garbage Project has now sampled and analyzed refuse buried between 1949 and 1987 in nine MSW landfills across the country (1 in Tucson, AZ; 1 in Tempe, AZ; 2 by the San Francisco Bay in California; 2 in suburbs of Chicago; New York City's Fresh Kills Landfill on Staten Island,

NY; and 2 in Naples, FL--six of these are still receiving refuse.

From this far-flung collection of landfills, The Garbage Project has unearthed some surprises which contradict popular myths and conventional wisdoms. I am here today to comment on The National Recyclables Commodities Act of 1989 by way of the 12 tons of raw realities we have excavated.

For decades most people have trusted that our organic wastes were busily decomposing inside landfills, making room for more refuse. But even our most treasured beliefs can be wrong. As we analyzed the trash, we began to notice that so-called "perishables" survive for a surprisingly long time. I remember a mound of guacamole still in its dish thrown out in 1977, hot dogs discarded in 1972, leaves raked up in 1964, construction lumber from 1956, and newspapers--stacks and stacks of them. The headlines, stories, and dates bring back the past: "Apollo Orbits Moon," February 30, 1971, The Arizona Republic newspaper; "Customs Men Bar Hippies to Cut Mexican Dope Flow," October 18, 1967, The Phoenix Gazette; "Hint Dropped by Truman Suggests He May Not Be Candidate for Pres," January 8, 1952, Tempe Daily News. Together, these newspapers form a chain of evidence: In landfills organics do not biodegrade as quickly as we would like.

This conclusion is important because newspapers and other paper items occupy the lion's share of landfill space--about 50 percent in refuse deposited from 1985 to 1987. Food, and yard wastes, construction wood and other organics raised that total to 70 percent of landfill volume.

It is even questionable whether "biodegradable" plastics will really biodegrade. Most biodegradable plastics are normal plastic with six percent cornstarch added. The theory is that microorganisms will eat the cornstarch and leave the plastic in tiny pieces. But I am skeptical. In our landfill refuse from decades past we have uncovered corncobs with all their rows of kernels still intact. If microorganisms won't eat corn-on-the cob, I doubt whether they will dig cornstarch out of plastics.

Given what seems to be mummified in landfills, I believe that if we are to preserve both our environment and many of the opportunities afforded by our life-styles, the direction to take is recycling. The United States once was home to a most efficient recycling/reuse system--the rag-pickers of the early 1900s. As the U.S. achieved prosperity, the rag-pickers moved more uptown as well. Many of their descendants are still pumping scrap metal and waste paper through the heart of the recycling industry.

The rest of us have a contribution to make as well. As people have become increasingly aware of the garbage glut, most have also voiced their willingness to sacrifice convenience and pay added costs for a healthier environment. The problem is, as The Garbage Project's 17-year study of fresh refuse shows, making sacrifices in our material life-styles is much easier said that done.

The "Garbage Crisis," however, has brought a significant behavior change. Virtually every major city has begun programs to remove recyclables from refuse headed for landfills. Recycling will be successful, I believe, because recycling is not a life-

style change; it is simple one more behavior we can add-on to our normal everyday activities. As it becomes an integral part of our lives, I believe that consumers will begin to buy products and packaging with recyclability in mind--and life-styles will begin to change.

There is one problem with our newfound recycling ethic: An essential link is missing. Without major new paper recycling mills and new markets for their products, a garbage glut will be turned into a glut of separated papers.

Many people misunderstand this recycling reality. All of my friends in Tucson, Arizona, proudly tell me that they recycle their newspapers. But not one of them does. They separate their papers. They drop them off at a buy-back center, or they put them out by the curb. But not one of them owns a multimillion dollar paper recycling mill. Separation is not recycling as your bill clearly states. Recycling newspapers requires special mills equipped with de-inking facilities. Such sizable investments by the paper industry require markets--someone to buy the recycled paper product. And who pushes more paper than the Federal Government!

I applaud your entire bill, but I am especially pleased that you properly position the horse to pull the cart. First you deal with Federal procurement and then Federal source separation. The market before the collection infrastructure.

There is only one implication of your bill which I personally find disheartening. As it leads to increased recycling, future landfill archaeologists will find fewer newspapers to tell your tale. While on paper the Apollo, and hippies, and Truman lie in wait for posterity, I must assume your goal is complete archaeological anonymity.

Senator GORE. You do that really well. I am glad we got you to come and lead off. Thank you very much.

We will hold our questions until after the other witnesses have completed their statements.

Mr. Allen Hershkowitz, again, is Senior Staff Scientist with the National Resources Defense Council in New York, an organization that has been extremely active in this particular field.

STATEMENT OF ALLEN HERSHKOWITZ, SENIOR STAFF SCIENTIST, NATIONAL RESOURCES DEFENSE COUNCIL

Mr. HERSHKOWITZ. Thank you. I will try to be brief. Above all, let me say that I appreciate the opportunity provided by your invitation to NRDC to share our positions on your exemplary legislative initiative, the National Recyclable Commodities Act.

Let me be very basic here. Each category of waste, each category of materials in the waste stream has its proper disposal route. Each category of waste has specific characteristics. If we look at the characteristics of the material in our waste stream, we can identify where things belong; basic chemical engineering, so to speak. I have included attached to my testimony a chart that I prepared for you which indicates NRDC's solid waste materials management hierarchy. It lists the materials in the municipal solid waste stream. It lists the available technologies to treat them in a table, and it indicates which materials are most suitable for what.

When you look at this table, you notice that, in fact, most of the material in the municipal solid waste stream is most suitable for recycling. Federal, State and local legislation, therefore, must encourage the efficient targeting of materials to their most efficient disposal route as dictated by basic chemistry and engineering, not to mention economics.

This approach will enhance the marketability of postconsumer wastes, and it also helps to isolate their environmental assaults and manage them efficiently. Just as each category of waste has its most efficient disposal route, each category of waste also has its distinct environmental assaults. Mercuric oxide batteries, alkaline batteries, have different environmental impacts than do newspapers or yard waste.

In order for this type of rational system of materials management to occur, a more effective pricing system needs to be encouraged for postconsumer recyclable materials. In addition, a more stable infrastructure needs to be stimulated to efficiently move millions of tons of valuable resources out of the municipal waste stream into our industrial sector. The bill we are considering today, S. 1884, intelligently attempts to do just that. We support S. 1884 as a sensible initiative designed to assist in the development of America's material recycling infrastructure.

Bearing our support for this bill in mind, I would like to raise the following concerns. As you know, S. 1884 assigns to the Department of Commerce the principal responsibility for the development of a sound secondary materials infrastructure. This is correct and sensible. It has long been known that the act of diverting valuable resources, paper, glass, metals, wood, plastics, rubber out of trash stream and into the world economy is an act of secondary materials commodities brokering.

Unfortunately, the brokering of secondary materials out of our waste stream has compared unfavorably with other commodities. In my testimony I list a number of reasons as to why this occurs, but for the sake of brevity I will skip those and just let them appear in the record.

For this reason, given the fact that we are dealing with secondary commodities brokering, one of S. 1884's most useful and potentially important requirements involves moving many of the economic aspects of recycling into the Department of Commerce.

It is of special note to the Commerce Committee, that in fact the Department of Commerce is already obligated to respond to a similar mandate. The Resource Conservation and Recovery Act already mandates that the Department of

Commerce, among other things, "stimulate markets for recycled waste materials, provide standardized specifications for recovered materials, identify the economic barriers to the use of recovered materials." These are Congressional stipulations in RCRA written over a dozen years ago.

RCRA also authorized $21 million to the Department of Commerce covering the years 1980 to 1988 to carry out this work. Unfortunately, as evidenced by the uncertain and underdeveloped state of America's recycling infrastructure, the Department of Commerce has been less than effective in satisfying its RCRA mandate. Only 10 percent, as you know, of all municipal solid waste is now successfully diverted to recycling industries.

The Department of Commerce is one of this Nation's most prestigious and, when it wants to be, most effective advocates for promoting economic trends. It was given very explicit instructions in RCRA regarding the development of postconsumer materials infrastructure development.

If the Department of Commerce, however, has been working to develop recycling in the United States, it has been a rather secret campaign. As the RCRA reauthorization debate begins in earnest, it is crucial that your committee conduct an oversight hearing on the Department of Commerce's efforts to promote postconsumer materials recycling and satisfy the intent of Congress as stipulated in RCRA. Moreover, such an oversight hearing is especially crucial to carry out the responsibilities assigned to the Department of Commerce in this bill.

If the Department of Commerce has failed over the past dozen years in implementing a very explicit mandate with regard to recycling in RCRA, why should we be comfortable that it will be able to follow up in this bill despite the intelligence and logic of placing the responsibilities with that agency.

Let me go on to a number of shortcomings with the bill that I suggest need to be addressed. First, baseline recycled materials content standards of a technically achievable 50 percent is not specified. It should be. The content standards for Federal procurement requirements need to begin at 50 percent as a baseline.

The use of manufacturing residues, forest residues and other preconsumer refuse materials in calculating a paper products recycled content is not explicitly prohibited. It should be. It is not the recycled content consumers and municipal officials in the private sector industries are concerned about in moving municipal waste out of landfills and out of incinerators or away from landfills and incinerators.

There is no outright prohibition on the applicability of this statute to incinerator ash.

Finally, the labeling provisions are not categorically helpful and, indeed, should be considered for deletion in deference to the already substantial activities moving forward in other arenas.

Let me close by quoting to you from Shearson Lehman's 1989 very influential recycling report, "Pollution Control Recycling." I offer this to you in contrast to the remarks made earlier by the representatives from the Department of Commerce. According to Shearson Lehman, "The government must play a major role in nurturing the flow of materials out of recycling programs towards end markets that can use them. Recycling's primary limitations pertain to the lack of efficient distribution of recycled materials which frequently results in unstable markets and a lack of incentive for industry to use recycled rather than virgin materials." This is Shearson Lehman.

"These problems can be best addressed at the Federal level. One significant step that must be taken is the institution of incentives for industries to use recycled products."

Towards that end, we believe that the National Recyclable Commodities Act is currently the single most useful legislative initiative that we can support. Thank you.

[The statement follows:]

STATEMENT OF DR. ALLEN HERSHKOWITZ, SENIOR STAFF SCIENTIST, NATURAL RESOURCES DEFENSE COUNCIL

My name is Dr. Allen Hershkowitz and I am a Senior Staff Scientist at the Natural Resources Defense Council. I greatly appreciate the opportunity to speak here today. The Natural Resources Defense Council (NRDC) is a national, non-profit environmental organization with over 150,000 members and a professional staff of attorneys and scientists dedicated to protecting public health and the environment. NRDC is a leading advocate and participant in the development of a national program for controlling the management and disposal of municipal solid wastes. To this end NRDC has worked closely with members of Congress in support of the passage of the Resource Conservation and Recovery Act, its amendments and other statutes pertaining directly or indirectly to waste management. We therefore appreciate the opportunity provided by your invitation to NRDC to share our research and positions on your exemplary legislative initiative known as the National Recyclable Commodities Act (NRCA).

Each category of materials found in the municipal solid waste stream has its own most efficient disposal management hierarchy. (see NRDC's Materials Management Hierarchy table, attached) Moreover, each category of wastes generates its own distinct environmental and public health threats. As NRDC's Materials Management Hierarchy reveals, most materials in the municipal solid waste stream are best handled by recycling. Federal, State and local legislation must encourage the efficient targeting of materials to their optimal disposal route by requiring the proper

and efficient management of major waste categories. This approach would enhance the marketability of post-consumer wastes and helps to isolate their environmental assaults and manage them efficiently.

However, in order for this rational system of materials management to occur a more effective pricing system needs to be encouraged for post-consumer recyclable materials. In addition, a more stable infrastructure needs to be stimulated to efficiently move millions of tons of valuable resources out of the municipal waste stream and into our industrial sector. The bill we are considering today, S 1884, intelligently attempts do just that. We support S 1884 as a sensible initiative designed to assist in the development of America's materials recycling infrastructure. Bearing our support for S 1884 in mind, I would like to raise the following concerns.

As you know, S 1884 assigns to the Department of Commerce the principal responsibility for the development of a sound secondary materials infrastructure. It has long been known that the act of diverting valuable resources (e.g. paper, glass, metals, wood, plastics, rubber, etc.) out of America's trash stream and into the world economy is an act of secondary materials commodity brokering. Unfortunately, the brokering of these resources compares unfavorably with the brokering of other commodities. This has occurred for a number of well known reasons including:

* the tendency of municipal governments to view recycling

activities as a public works project rather than a private sector opportunity;

* a high risk investment climate caused by the tendency of materials collection programs to be merely voluntary in nature;

* inadequate market information;

* an absence of storage space essential for effective materials brokering;

* ineffective classification of these materials;

* an underdeveloped collection infrastructure leading to the accumulation of a lower quality material (where accumulation takes place at);

* an invariable bifurcation of profit centers into a materials "collection" zone and a materials "processing and marketing" zone, limiting the return potential to any single investor;

* the tendency to view recycling as an environmental activity in the absence of essential economic development and support.

S 1884 offers our nation the opportunity to take an intelligent step away from past failures. One of S 1884's most useful and potentially important requirements involves moving many of the economic aspects of recycling into the Department of Commerce (DOC). However, it should be of special note to this Committee that in fact that the Department of Commerce is already obligated to respond to a similar mandate. The Resource Conservation and Recovery Act already mandates that the DOC, among other things,

* stimulate markets for recovered waste materials;

* provide standardized specifications for recovered materials;

* identify the economic barriers to the use of recovered materials;

RCRA also authorized a $21 million allocation to the DOC covering the years 1980 to 1988 to carry out this work.[1]

Unfortunately, as evidenced by the uncertain and undeveloped state of America's recycling infrastructure, the DOC has been less than effective in satisfying its RCRA mandate. Only ten percent of all municipal solid waste is now successfully diverted to recycling industries. The DOC is one of this nation's most prestigious and, when it wants to be, effective advocates of economic trends. It was given very explicit instructions in RCRA regarding the development of post-consumer materials recycling infrastructure. However, if the DOC has been working to develop recycling in the U.S. it has been a rather secret campaign. As the RCRA re-authorization debate begins in earnest, it is crucial that this Committee conduct an oversight hearing on the DOC's efforts to promote post-consumer materials recycling and satisfy the intent of Congress as stipulated in RCRA. Such an oversight hearing is especially crucial to carry out in light of the responsibilities assigned to the DOC in S 1884. Needless to say, NRDC would be pleased to offer its fairly considerable legal and technical expertise to assist in such an inquiry.

NRDC has for some time been recommending that commodities in the municipal solid waste stream be diverted away from incinerators and landfills for recycling at the following rates within five years

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1. 42 U.S.C. § § 6951-6955.

after implementation of any recycling project or statute:

65% glass shall be diverted;
65% of old newspapers shall be diverted;
50% of all other paper shall be diverted;
80% of all metals shall be diverted;
20% of all plastics shall be diverted;
90% of all yard wastes shall be diverted;
10% of all food wastes shall be diverted.

By adopting NRDC's materials-by-material recycling strategy and specifying how much of what materials shall get diverted, municipalities enhance the information available to any private sector interest capable of collecting and processing these materials for recycling.[2]

However, the ability to achieve these environmentally valuable recycling rates by both the private and public sectors is in part hampered by exactly the type of issues the National Recyclable Commodities Act attempts to address. According to Shearson Lehman's Sept. 1989 recycling study,

> "the Government must play a major role in nurturing the flow of materials out of recycling programs toward end markets that can use them!.. Recycling's primary limitations pertain to the lack of efficient distribution of recycled materials, which frequently results in unstable markets, and the lack of incentive for industry to use recycled, rather than virgin, materials. These problems can could be best addressed at the federal level... One significant step that must be taken is the institution of incentives for industries to use recycled

2. The diversion rates suggested above for some of the listed commodity groups reflect rates being achieved in various parts of the U.S., Europe or Japan, i.e., these diversion rates represent the best demonstrated recycling technologies.

products."[3]

Toward that end the National Recyclable Commodities Act is currently the single most useful legislative initiative we can support. If effectively implemented it could facilitate the collection of essential data on future market capacity which, in turn, will assist investors and municipalities assess their relative risks and assign accurate capacity estimates to their future marketing projections. It could lead to a standardization of the classification of secondary commodities. It will help identify Federal subsidies and other incentives provided for the manufacture of goods made from virgin materials that compete with goods made from post-consumer materials. And perhaps most importantly, it charges the Secretary of Commerce with establishing guidelines for procurement by the Federal Government of materials made from recovered paper and paper products, glass, tires, rubber, compost and other soil amendments, metals, plastics and at three other categories of items.

Despite its strengths, S 1884 has a number of shortcomings which require redress. First, baseline recycled materials content standards of a technically achievable fifty percent is not specified. It should be. The use of manufacturing residues, forest residues and other pre-consumer refuse materials in calculating a paper product's recycled content is not explicitly

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3. Shearson Lehman Hutton, Industrial Pollution Control: Recycling, September 28, 1989 at p. 14 and 21, emphasis added.

prohibited. There is no outright prohibition on the applicability of this statute to incinerator ash. And finally, the labelling provisions are not categorically helpful and, indeed, should be deleted entirely from the bill in deference to already substantial activities moving forward in other arenas.

Thank you.

N.R.D.C.'S SUGGESTED SOLID WASTE MATERIALS MANAGEMENT HIERARCHY

	LOCALLY SPECIFIC WASTE-STREAM %	*REUSE POTENTIAL*	*RECYCLING SUITABILITY*	*SUITABILITY FOR LAND STORAGE IF NECESSARY*	*SUITABILITY AS INCINERATOR FUEL*	*SUITABILITY FOR LANDFILLING*
Yard Waste		High	High	Not Suitable	Low	Not Suitable
Food Waste		High	High	Not Suitable	Low	Not Suitable
Glass		Variable**	High	High	Not Suitable	Low
Plastic		Variable**	High	High	High/Variable (A)	Low
Metals		Variable/Low	High	Not Suitable	Not Suitable	Not Suitable
Paper		Low	High/Variable	Not Suitable	High/Variable	Not Suitable
Tires		High	High	Variable (D)	Variable (A)	Not Suitable (B)
Construction & Demolition Debris		High/Variable	High/Variable	Low	Low/Variable (C)	Variable
Used Oil		Low	High	Not Suitable	Variable (A)	Not Suitable
Textiles		Variable	Variable	Not Suitable	Variable	Variable

(A) See discussion on problems with incineration.
(B) May be mixed with landfill cover if chipped.
(C) Wood only.
(D) Only as a chipped resource.

** Will vary by form and container.

Senator GORE. Great. Thank you very much. We certainly appreciate that endorsement. We will save our questions, as I noted earlier.

Our next witness is Susan Birmingham, again, Environmental Lobbyist with U.S. Public Interest Research Group.

STATEMENT OF SUSAN BIRMINGHAM, ENVIRONMENTAL LOBBYIST, U.S. PUBLIC INTEREST RESEARCH GROUP

Ms. BIRMINGHAM. I am Susan Birmingham, Environmental Lobbyist with U.S. Public Interest Research Group, the national lobbying office of the state PIRGs. In 25 states, PIRGs are a nonprofit, nonpartisan research and advocacy groups. PIRGs are supported with over a million members nationwide.

PIRGs have long been active in developing and implementing recycling policy, particularly at the state level, and increasingly at the national level. Most notably is the success of our work on behalf of bottle and can recycling laws, the most effective recycling collection systems on the books today.

PIRGs have worked extensively in the area of source reduction, passing landmark state legislation to reduce the use of toxics in industrial processes.

On behalf of the PIRGs I am very pleased to present testimony on S. 1884. This bill is very timely for us to consider, as a significant portion of our work to promote recycling is now focused on market development.

Before beginning comment, we would like to take this opportunity to express our appreciation for Senator Gore's continued leadership on behalf of the environment. Particularly we would like to thank the Senator for his work on the Clean Air Act, to protect our ozone layer, and minimize public exposure to air toxics.

Senator GORE. You will be allowed to revise and extend these remarks for the record.

Ms. BIRMINGHAM. We are pleased that the Senator is working on issues of recycling, and we look forward to combining these efforts to see S. 1884 through its passage.

This testimony is divided into two parts. First, we will comment on the existing provisions within the bill; and second, we would like to recommend additions to the bill, and in so doing, share with the Committee the developments under our policy work regarding market development for recycling.

The PIRGs start with four important principles or assumptions. The first is that the solid waste crisis is indeed a crisis and is steadily worsening. Two, source reduction and recycling represent the most cost-effective and environmentally sound approach to solving this most urgent problem.

Third, industry-driven market development is the most viable way of establishing recycling within the context of a market economy. Fourth, the Federal Government can and should play an aggressive role in ensuring industry-driven market development by setting stringent performance standards and establishing effective enforcement mechanisms of those standards.

It was with these assumptions foremost in mind that we reviewed this bill. We found much we could support. However, we do think the bill could go further to accomplish its intention of expanding industrial manufacturing of recycled goods, and stimulating and strengthening available markets for recycling goods.

Briefly, we support the provisions of the bill which outline what we view is an appropriate role for the Federal Government. And, specifically, we support provisions which require analysis of the waste stream itself, standardized types and grades of recycled commodities, provide analysis of recycling capability, require a review of product specifications and standards which may disfavor recycling, allow for citizen suits, and provide for aggressive federal procurement.

However, we do have concerns at this point concerning, number one, the Federal Government's ability to provide an effective labelling program. At this time, we ask that this provision of the bill be dropped.

Additionally, we are concerned that the definitions outlined in the bill for what constitute recycled content may be inadequate in promoting the recycling of post- and pre-consumer waste. To include manufacturing refuse as it is included in the bill is to unfortunately miss the point of increasing recycling.

Senator GORE. May I interject on that point. That is not the intent of the legislation. And if you read the language the way we want it to be read, you will not come to that conclusion. But since you reached the other conclusion, and since some others did, it seems apparent that we do need to look at that particular language.

But that is not the intent of the legislation. I am sorry to interject.

Please, go ahead.

Ms. BIRMINGHAM. We are very pleased to hear that.

Finally, and most importantly, we urge the Committee to consider adding to the bill provisions whereby the Federal Government would set strong content

standards not only for procured goods, but for a much wider range of materials and products.

It is at this time that we would like to share with the Committee the results of our work on market development for recycling. PIRGs, along with most experts on the issue, acknowledge that the real obstacle to expanded recycling is not consumer resistance. In fact, the most common argument today against aggressive curbside programs is that they will generate too much participation and lead to a market glut.

In other words, the real problem is not supply of recyclables, but rather demand for the recyclables that are collected. Furthermore, whatever problems there are in generating supply are best resolved byu increasing demand. Once demand is the issue, industry's role assumes center stage.

Simply put, we will not make major recycling gains until industry increases its demand for recyclables by increasing its use of recycled materials. In other words, there is no practical way to make gains on recycling without substantial investment by industry. The ability of a state or the Federal Government to expand recycling with some millions of dollars of public investment is minimal when compared to what a few billions dollars a particular industry investment will accomplish.

Furthermore, government will never be as knowledgeable about the complexities of recycling markets, especially matching available recycled materials to specific needs, as private industry.

The PIRGs have developed policy which will appear as questions in a statewide ballots of Massachusetts and Oregon this November in 1990. These trailblazing initiatives assume the proper role of government is to set stringent content standards thus requiring the necessary investment and innovation within industry to meet those standards.

We have every reason to believe that these ballot questions will be viewed favorably by voting citizens in these states, since support for recycling among the public, by all measures, is at an all-time high. It is our hope that with concrete experience thus gained in Massachusetts and in Oregon, we will provide valuable information and impetus for similar work in other states, as well as on the federal level.

The purpose of the Massachusetts Packaging Reduction and Recycling Act and the Oregon Recycling Act is to more than double the recycling rates in those states over the next 10 to 12 years, by giving industry a direct stake in expanding recycling markets. Particularly, we are concerned here about the markets for the four materials, paper, glass, metal and plastics, which accounts for 95 percent of packaging and 65 percent of all solid waste.

This is accomplished by establishing a set of simple but stringent recycling standards for packaging materials, and then giving the relevant industries maximum flexibility to make the innovations necessary to meet those standards. The laws use packaging as the focal point, i.e., materials cannot be used in packaging if they do not meet these recycling standards. But the standards themselves are carefully designed to leverage recycling improvements well beyond packaging markets.

The core provisions of these bills establish again a set of simple standards and require that packaging meet at least one of these, that the package is either reusable, recyclable, or made of recycled materials. Definitions for recycled content are set along an escalating timetable, thus allowing industry the ability to make the necessary investments over time in order to meet these standards.

We ask that a more detailed analysis and language of the initiatives be accepted for public record.

Senator GORE. Without objection.

Ms. BIRMINGHAM. These laws will not be the final word on recycling in these states, but the underlying principle that it is government's role to set stringent performance standards and industry's role to use innovation and investment to meet those standards, we hope to firmly establish.

We believe that this is the only viable way to quickly and efficiently, as the current situation demands, move from a destructive throw-away economy to one which values conservation and recycling of our precious resources.

Thank you.

Senator GORE. Thank you very much.

I am especially pleased to welcome now, Ms. Mary Gattis, Associate with The Stewardship Group in Nashville, TN, as our next witness.

STATEMENT OF MARY GATTIS, ASSOCIATE, THE STEWARDSHIP GROUP, NASHVILLE, TN

Ms. GATTIS. Thank you, Senator.

My name is Mary Gattis, and I am an associate with The Stewardship Group, which is a new environmental consulting firm in Nashville. We are presently contracted with the Tennessee Environmental Council to perform the Tennessee Commercial Recycling Project, a program designed to encourage commercial sector recycling throughout the state.

I have also been, for the past year and a half, president of Recycle! Nashville, which is a local citizens group working to promote recycling within the community. We have established over 20 drop-off centers through the community, as well as assisted surrounding counties with developing programs to recover materials.

As has already been said, the question is no longer will people collect the materials, but what are we going to do with them after they have been collected. The public citizens are going out and they are procuring materials as much as they can. However, I would like to refer to the labelling component of the bill, and suggest that the provisions for labelling as to recyclability be deleted, but that we include the recycled content of the materials in order to assist people in their purchasing habits.

We as consumers want to do the right thing, and I believe that the labelling of nondurable goods, where markets do not exist, could lead to confusion of the consumer.

We must create an environment whereby government, industry and individuals can work together to develop solutions to our solid waste dilemma. I feel this bill is very strong in many areas. And quickly I will go down the list of these: The establishment of the Bureau For Recyclable Commodities, and the clearinghouse function that that would serve. I feel like that information is very important.

The establishment of the multi-state regions for data collection and marketing purposes. The standardization of types and grades of recyclable commodities, again, to assist in the full circle. The standardization of test methods. A call for periodic market analysis. The labeling of materials as to their recycled content, and not necessarily to their recyclability.

The federal procurement guidelines and implementation, which I will address again in a minute. The call for the national advertising campaign in order to help encourage the markets. And the establishment of the university recycling research centers. I also support the establishment of the federal office source separation programs, and want to point out that Tennessee State government has instituted recycling programs in its state office buildings, and those are very

successful. People are participating and are proud to be doing that. They will participate in the collection programs.

I want to make comment in support of the deadlines set forth in the bill. I feel like these are very important, given the time and essence of dealing with the growing problem of municipal refuse.

Let me just discuss quickly some of my concerns with the bill. As section seven reports on recycling capacity and the extent of federal subsidies. Historically, products made from secondary materials have been more expensive than those made from virgin materials. This does not help to create markets. Normal market condition will help to put recycled goods in a more competitive position. However, federal subsidies and other incentives favoring the use of virgin materials must be eliminated.

I would also like to make comment on the federal procurement. The purpose of the Bureau of Recyclable Commodities, as stated in section three, is to promote the use of recycled materials derived from municipal refuse. This point must be considered throughout the establishment of the minimum content standards. And in allowing the use of manufacturing residues, forest residues, and other pre-consumer refuse materials, we are not addressing the primary issue of creating markets for our municipal refuse.

Recycling is not recycling until the recyclable material has completed the loop from collection to remanufacturing to repurchase. And I support this bill and ask that the rest of the Committee do this. I feel it is important that you begin to provide leadership. If we are going to ask the citizens to do it, then we have to be provided with some form of leadership to follow.

Again, I appreciate the opportunity to present my testimony before you, and I applaud your leadership in the efforts that you are providing in recycling.

And I look forward to seeing you on Saturday. Senator Gore will be at one of our local drop offs in Nashville, and we look forward to having him there.

Thank you.

Senator GORE. Thank you for an excellent statement.

Our final witness on this panel is Miss Alair MacLean, with Fiber Recovery Unlimited here in Washington. Welcome.

STATEMENT OF ALAIR MacLEAN, VICE PRESIDENT, FIBER RECOVERY UNLIMITED

Ms. MACLEAN. My name is Alair MacLean, as you said, and I am the vice president of Fiber Recovery Unlimited, which is a local recycling firm focusing on paper recycling. I am also the co-author of a book entitled "Salvaging the Future: Waste Base Production."

The intention and form of this legislation establishes an effective structure to encourage recycling by moving responsibility for encouraging recycling to the Department of Commerce, but the threshold levels currently in the legislation are too low. I think that my testimony will fall into the category of technical concern. In some cases, the legislation calls for recycling that is actually lower than what the industries in question are already achieving.

This legislation shifts responsibility for developing domestic markets for recyclable materials from the Environmental Protection Agency to the Department of Commerce. I say that because right now, by default, the EPA has been taking responsibility for developing domestic markets, because as we heard, the Department of Commerce has moved that responsibility into the International Trade Administration—the Catapulto method of encouraging recycling.

I want to talk a little bit about why it is that it is so hard to get all of these materials that people are collecting at the municipal level and in offices—why it

is so hard to get them recycled. You only need to go down to the loading dock of the Hart Senate Office Building to see some of the obstacles to recycling. Paper down there is mixed in with styrofoam coffee cups. It is all different colors and types. It is also mixed in with cigarette butts and banana peels.

If you think about this from the manufacturer's perspective this is not a very attractive raw material, so what we have to do is make it more attractive, and one of the ways to do this is to convince manufacturers that if they produce products from recyclable materials they are more likely to find a market for them than if they produce products from nonrecycled materials.

I think that the provisions of your bill, particularly the labeling and procurement provisions, do that—help to convince manufacturers that they will find more of a market. Our recent studies of environmental purchasing habits have found that approximately 20 percent of U.S. shoppers make their purchasing decisions based on the perceptions of the environmental impact of the products they are purchasing. This does not sound like that much, but if you think about it, most of the time when you go to the store price or quality are your primary considerations, so this means that 20 percent of all Americans first think about the environmental impact, but in order for them to do this effectively they have to have accurate information, and I think here that it is important for the Federal Government to do the labeling.

There are a lot of efforts going on at the state level and regional level, private level, to develop labels that will identify materials that are environmentally benign. The problem is that they are starting to come into conflict. I was talking to someone in California the other day, and he said, "If a product was labeled as recycled in New York and then sent to California we would have to send it back, because it would not be recycled by our definition." So it is important that the Federal Government do this at a centralized level.

The legislation provides for two kinds of labels, as people have mentioned: labels that identify a product as being recyclable or nonrecyclable, and also as being recycled. The legislation contains basic levels that qualify a product as recyclable. The problem with the legislation is that right now, for example, in the paper industry, the paper industry as a whole is achieving a recycling rate of about 25 percent, somewhat higher than that. The label would put the cut-off at 10 percent recycling, so there is not really an incentive for the paper industry to go beyond where it is going. I think that Allen's point about the 50 percent recycling cut-off is probably more appropriate for the intention of this legislation.

Now, procurement has been handled so far by the Environmental Protection Agency. Since 1976, they have had responsibility for this aspect of increasing markets for recycled materials. They introduced their first guideline in 1973, which was for cement containing fly ash. Since then, they have introduced guidelines for paper, asphalt containing rubber, rerefined oil, and also retread tires.

Two years ago, the EPA released their guideline for purchasing recycled paper. Under this guideline, many types of paper products must contain what is called "post-consumer waste." Post-consumer waste refers to any product that has reached its intended use and then been thrown away, so the newspaper that you read this morning, or the envelope that contains your mail, that is all post-consumer paper. Also the mail, if you throw it away.

The current purchasing guidelines call for agencies, Federal agencies, to purchase newsprint, tissue paper and boxes that contain some level of post-consumer waste. Under the EPA guideline, the printing and writing paper that is purchased as recycled does not have to have post-consumer waste in it, and there is a rumor going around right now that Senator Mitchell has introduced

guidelines to the EPA that would allow printing and writing paper to contain sawdust and still qualify as recycled. That is going to be put into the Federal Register in July.

But post-consumer paper is what we really need to focus on, because that is the paper that is going into the landfills, and that is what we are having trouble recycling. Remember the post-consumer waste paper that I talked about in the Hart Senate Building, that is being recycled at a very low rate right now. The types of paper that are specified in your legislation as qualifying for recycled are being recycled very effectively, so basically I would encourage you to consider putting "post-consumer" into the specifications for the Government purchases.

Also, I would say that as you pointed out the Department of Commerce, in questioning whether or not the data exists, to produce the kind of reports that you have asked for in the legislation it is important that that data do exist and that the Department of Commerce is the place for those kinds of guidelines to be set up.

In conclusion, I would say that this legislation's structure and intent represent a recognition of the importance of considering waste materials as valuable raw materials, but the levels required in procurement and labeling are too low to effectively do what you want to do in this legislation, which is absorb the recyclable waste that local governments are now collecting.

[The statement follows:]

STATEMENT OF ALAIR MacLEAN, VICE PRESIDENT, FIBER RECOVERY UNLIMITED

Mr. Chairman and members of the Subcommittee, thank you for the opportunity to testify on this legislation regarding the expansion of markets for recyclable materials. My name is Alair MacLean. I am the Vice President of a local recycling firm, Fiber Recovery Unlimited, and the co-author of a book titled Salvaging the Future: Waste-Based Production.

Today I will talk about some of the obstacles to recycling in order to try to explain the industrial reluctance to increased recycling and the corresponding importance of governmental efforts to overcome this reluctance with labeling and procurement. In talking about government labeling and procurement I will analyze the impact of the bill before this committee, S. 1884.

The intention and form of the legislation establish an effective structure to encourage recycling. But the threshold levels currently in the legislation are too low. In some cases the legislation calls for recycling that is actually lower than what the affected industries are already achieving.

In 1987, the garbage crisis sailed onto the horizon of popular consciousness with the voyage of the garbage barge, Mobro. Mobro's search for a home impressed legislators and citizens with the need for a safe, clean method of disposal for garbage. Since that voyage, at least nine states have enacted legislation calling for Mr. Chairman and members of the Subcommittee, thank you for the opportunity to testify on this legislation regarding the expansion of markets for recyclable materials. My name is Alair MacLean. I am the Vice President of a local recycling firm, Fiber Recovery Unlimited, and the co-author of a book titled Salvaging the Future: Waste-Based Production.

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The intention and form of the legislation establish an effective structure to encourage recycling. But the threshold levels currently in the legislation are too low. In some cases the legislation calls for recycling that is actually lower than what the affected industries are already achieving.

In 1987, the garbage crisis sailed onto the horizon of popular consciousness with the voyage of the garbage barge, Mobro. Mobro's search for a home impressed legislators and citizens with the need for a safe, clean method of disposal for garbage. Since that voyage, at least nine states have enacted legislation calling for opportunity to turn garbage into new products has produced relatively few new domestic industries. This is because many industries, particularly the paper industry, are apprehensive of using waste materials as raw materials.

The focus of this legislation, shifting responsibility for developing domestic markets for recyclable materials from the Environmental Protection Agency to the Department of Commerce, reflects an important shift in the perception of recycling. Up until now the Federal government has primarily seen recycling as a response to an environmental problem or as an opportunity for increasing exports. By shifting responsibility for procurement and labeling of recycled products to the Department of Commerce, this legislation recognizes the important opportunities for local economic development inherent in the collection of waste materials.

One need only go down to the loading dock of the Hart Senate Office Building to see some of the obstacles to recycling. Paper collected for recycling in the Hart basement is, literally, a mixed bag. Styrofoam coffee cups are mixed in with different types and colors of paper, which are mixed in with everything from cigarette butts to banana peels. Think about this as raw material from a manufacturer's perspective. Not too appealing. So, in order to make this raw material more appealing we need to convince manufacturers that they will gain something from using it. For example, that a manufacturer will be more likely to sell a product opportunity to turn garbage into new products has produced relatively few new domestic industries. This is because many industries, particularly the paper industry, are apprehensive of using waste materials as raw materials.

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The legislation accounts for this distinction by requiring that a product actually be recycled before it can be called recyclable.

In order to promote recycling as a strategy for production, the legislation must use the power of the label to encourage higher levels of recycling than have already been achieved. In some cases the legislation fails to do this. For example, though the paper industry as a whole is recycling at a rate higher than 25 percent, the legislation defines products as "recyclable" if they have achieved recycling rates of just 10 percent. The same is true for aluminum and other metals. Most plastics, of course, are still being recycled at rates lower than 10 percent, so this classification may be appropriate for them.

Since 1976 the EPA has been responsible for identifying and preparing guidelines for recycled products that can be purchased by the federal government. Congress considered that government purchasing could help expand the market for recyclable commodities. residue attracts flies, sours, turns sticky and presents a storage problem. So, the same companies that are happy to recycle milk cartons before they have had milk drunk from them, are unwilling to recycle the newly contaminated material. Same material, different circumstances. Milk cartons are technically recyclable, but rarely actually recycled.

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Since 1976 the EPA has been responsible for identifying and preparing guidelines for recycled products that can be purchased by the federal government. Congress considered that government purchasing could help expand the market for recyclable commodities. currently before this committee moves the responsibility for developing purchasing guidelines from the Environmental Protection Agency to the Department of Commerce. The legislation also requires the government to buy recycled paper.

The problem with the definition contained in this legislation is that its specifications for recycled paper are even less stringent than current federal guidelines for procurement. This act does not require mills to use post-consumer waste. It would allow mills to use what is called pre-consumer waste to respond to government purchases. In the paper industry, clippings from the floors of manufacturing facilities, fibers from the manufacturing process, unsold bales of paper, are all called pre-consumer paper. Almost all of this kind of paper is already being recycled, while only 10 percent of the kind of paper found in the Hart basement is being recycled. In addition, the current legislation allows printing and writing paper mills to use categories of waste excluded from the EPA guideline, such as forest residues and saw dust.

Government purchases can be analyzed in two ways: (1) by quantifying their direct impact, in other words how big is the market provided by the government itself; or (2) by extending the standards set by government purchases to the economy as a whole, in other words how big would the currently

before this committee moves the responsibility for developing purchasing guidelines from the Environmental Protection Agency to the Department of Commerce. The legislation also requires the government to buy recycled paper.

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Thank you again for the opportunity to testify before this subcommittee.

Senator GORE. Thank you very much. We are going to review the numbers in some of those categories that you point to. We have had discussions since the introduction of the bill and before this hearing about the numbers, and in every case we are going to make certain that the numbers that are established are ones that will move us forward toward a more successful recycling effort, so you are generous in saying that falls in the technical change category. If it does not, it should, because we do want to make sure that the numbers reflect demonstrated progress toward the goals that we are seeking there.

On the question of labeling, several of the witnesses on this panel mentioned labeling. Our understanding was that in the view of some our standard was not stringent enough with respect to what is recyclable. If this is the problem that you are referring to, then we understand it. If it is the labeling provision in general, then I would like to know more about your concerns on that specific provision.

As I understand it, everybody here is supportive of the legislation and favors the legislation, but you have specific suggestions on different parts of it, and several did mention that labeling provision. Please help us understand exactly what your problems are with that provision as it is currently written.

Mr. HERSHKOWITZ. As it concerns the recycled label, that is something that is resolvable, not too complicated in terms of specific content standards and the specific kinds of materials that we are talking about that can be included in calculating those content standards. That is resolvable.

The primary concern gets generated with the term "recyclable." As you know, "recyclable" is a function of two phenomena: one, the nature of the material, and two, the nature of the commercial infrastructure able to process the material into something useful again.

With regards to the former, everything is technically recyclable. Basically, it would be very difficult for us to identify anything that could not, by composition, somehow or another be recycled into something usable. The logistical difficulty comes into play when we start to calculate, is it being recycled? Polystyrene—many plastics—are a clear and obvious example. Less than 1 percent of all plastics in the United states are being recycled, yet certainly more than 1 percent of all plastics in the United States bear that recyclable label.

The point here is that it is misleading to suggest that something is recyclable when in fact an infrastructure is not in place to recycle it. Now, the bill as currently crafted indicates that it has to be recycled in one of the regions identified at a rate of at least 6 percent—I am sorry, 10 percent, in order to get that recyclable label.

Our concern is that there will be insurmountable methodological obstacles in order to calculate the 10 percent number. What if you live on the border of one of those regions, and the bill as now crafted allows for a joining of two regions but still it is possible for you to live on a border of one of those regions where in fact the material is not being recycled and yet it gets a recyclable label?

Our current position, given the logistical obstacles involved here, is that there be some kind of a categorical ban on the use of the term "recyclable" until we have a better mechanism, and I am not sure one could be developed to overcome the difficulties in truly identifying what is being recycled.

Senator GORE. A couple of others mentioned the labeling provision. Do you want to elaborate on that briefly, Miss Birmingham, or Miss Gattis?

Ms. BIRMINGHAM. Thank you, Senator. I think our concerns are several, and I understand that the whole issue of labeling is kind of new to come up, and perhaps there has not been enough adequate discussion in the environmental community itself to come up with a consensus position.

Senator GORE. We were surprised, because we consulted widely on that particular provision beforehand and did not get suggestions on it, but that does not mean we do not fully and sincerely welcome the suggestions now and will evaluate them carefully. Go ahead.

Ms. BIRMINGHAM. We would agree with Allen's comments on the problems with the definition of recyclability, since all things are potentially recyclable, and it is almost impossible on a Federal level to track whether or not there is an "effective market" already in place for something to be recycled.

Our major issue is that labeling implies one strategy. We think the energy expended in implementing a labeling program is best expended by simply requiring mandatory standards for products that are manufactured and sold in the United States.

Again, it is an enormous task for the Federal Government to undergo an effective labeling program. It again implies there is a choice that we have as between to recycle and not to recycle. We do not think there is a choice if we want the planet to survive, and think the energy is best spent on setting mandatory standards which industry has to follow.

Senator GORE. Now, on the standards issue again, would it be advisable to set separate standards for separate materials, paper, plastic and metal, et cetera, for purposes of these provisions, or should we call for a 10 percent increase in all areas so that paper would have to go to 35 percent, et cetera? I throw that out just as a question to provoke analysis. If anyone wants to respond to it——

Mr. HERSHKOWITZ. I will be very brief on it. Clearly, if we are talking about materials management, which we are, then we have to be as precise as possible. The composition, the nature of each material, varies. It is not analytically defensible to apply the same kind of technical criteria to plastics as you do to paper, so clearly each material has to be evaluated on its own merits.

Senator GORE. Good point. Let me say I have other questions, but I want to introduce my colleague and partner in this legislative venture, Senator Gorton.

Senator GORTON. Dr. Rathje, I will direct this question to you, but I will be happy to have comments from anyone else there.

Are there any other places in the world in which we have examples of what can be done? Are various Europeans ahead of us? Do they have lessons for us? Do the Japanese?

Dr. RATHJE. I think from my own perspective I would say that Japan certainly does. I spent a month there last summer. What impressed me about the Japanese was the fact that they follow what they call integrated solid waste management, which means that virtually every community uses incineration, landfilling, recycling and source reduction where they consider it to be most appropriate.

I guess what I was somewhat surprised about, though, was that, for example, in plastics recycling the Japanese basically gave that up almost 10 years ago. They started recycling plastics as a way of conserving oil, and when the yen went up in value the plastic recycling just dropped out of sight. I asked them what they

thought of the future of it, and they said, well, we are waiting for the United States to figure out how to do it, and then we will figure out how to do it cheaper.

I think the key is that they are using a wide variety of approaches. Certainly recycling is very important, and it is the area that I think is most applicable in the United States because it does not require a major behavioral change either to buy recycled products or to separate and collect the material. It is something that you add on to existing behavior, and that will be the best.

Senator GORTON. Let me follow up on that. I want the answers of others to that question, but they can do two at a time.

What is the function of federalism in this whole field? We, of course, have a bill here in Congress. You all have endorsed it to a greater or lesser degree or said it ought to go further. I take it that you do not favor any form of Federal preemption in any of the fields about which we are speaking now.

Are we learning things from the experience of states and even of localities in this field from a long-range point of view? Is there a future for State legislation in this field, or are the investments that we are talking about so significant that almost inevitably it has to be national in scope?

Dr. RATHJE. If I can briefly answer that, I think that there is definitely a Federal role. It comes down to the fact that everybody says solid waste is a local issue, and it is. There is garbage everywhere. As the local organizations put out various kinds of regulations and so forth, companies that are producing products which are distributed nationally are in a hopeless situation where they have to meet different regulations and different standards in every different part of the country.

The issues that have been brought up here about labeling I think are all very important, but I think what it says most is there needs to be some kind of national standard so that you do not have to read the regulations carefully when you go into every different town to find out what "recyciable" or what "recycled" means.

So I think there is a very important role for the Federal Government. As I mentioned before, just the amount of paper and other materials that are procured means that you are in an incredible position in terms of jumpstarting markets of all different kinds. The only real problem that I see is that you have a tendency, it seems, in this legislation to narrow things down to food packaging or containers or this or that. I think anything that has recycled content in it should be included, but I do think the Federal Government has a very important jumpstarting recycling.

Mr. HERSHKOWITZ. Sir, let me comment on your questions.

With regard to Japan, I spent a considerable amount of time there. I wrote a book on garbage management in Japan and, in fact, led a Congressional OTA tour to Japan in preparation for the study, "Facing America's Trash."

There are many specific lessons that we could learn from Japan, but I think actually it is most useful for us to bring back conceptual perspectives. That is basically how I began my presentation, by indicating that each category of waste has its proper disposal route.

For example, I visited 14 incineration facilities in Japan, and invariably when I went to these facilities I was shown where they sort out the noncombustibles. They basically take out glass, metals and other materials that do not burn. According to U.S. EPA data, 70 percent of all incinerator ash coming out of U.S. incineration facilities is glass and metals. Why should municipalities be paying to bring glass and metals to furnaces, only to pay again to take these materials as contaminated ash to a landfill?

The Japanese learned long ago that this just does not make economic sense, nor does it make, of course, environmental sense because these materials do not

enhance combustion efficiency. You do not put bottles and cans in your fireplace. I do not, either. Yet, proposals are coming forth daily to accept these materials in furnaces around the country.

The point is that we need to look at what the materials are, and we need to use the private sector, we need to use Federal legislation and local legislation to encourage the private sector to get the materials to where they belong. We do not need to somehow throw up our hands in despair and say, well, it should all be mixed together and, therefore, we need to burn it all. The Japanese offer substantial lessons, and just to make this short I will send you a copy of the book I wrote, "Garbage Management in Japan."

With regard to the Federal role, I think it is important to bear in mind that with regard to consumer products, which is really what we are talking about here, marketing is national. There is a reason why we do not use refillable bottles anymore. That is because local breweries and local bottlers have basically gone by the wayside, and we now have literally national, if not international, distribution centers that basically find it more cost effective to operate in a one-way fashion. Only the Federal Government can respond to the national marketing of our major industrial sectors.

Procter & Gamble, a $20 billion firm, is not a locally specific firm. It is a national marketing company. I mention that because it is in the forefront of actually responding to some of these concerns.

So there is clearly with regard to the movement of materials to market, with regard to labeling, with regard to content standards, a role for the Federal Government. Certainly localities, however, have been at a disadvantage in having to pay for the cost of collection and marketing without any assurances that the material will be ultimately accepted by markets.

Unless the Federal Government requires content standards, high content standards, municipalities may be left holding the bag literally. They may collect this stuff, process it for market, and then find that the material has no place to go. Only the Federal Government can really handle that.

Ms. MACLEAN. I would like to respond briefly to your question about the relationship between the Federal Government and the states. It is almost self-evident that the states and the localities are going to have to be responsible for the collection aspect. I would agree with Allen also that marketing has to take place on a national level.

In some cases, however, the Federal Government's leadership has followed things that were initiated at the State level and has harmed initiatives that took place at the State level. For example, in the procurement situation California had its legislation years before the Federal Government actually put its guideline into place, and California's guideline goes a lot farther than the Federal guideline. Now there is a movement among states to adopt a Federal guideline which will in essence put the states backward from where they were.

So I think that the Federal Government needs to look at what has been going on at the State level, too.

Senator GORTON. Thank you.

Senator GORE. Thank you, Senator Gorton.

Ms. Gattis, if you had to identify one factor as the key to the success or failure of a local recycling program, which factor would you single out?

Ms. GATTIS. Of course, I would have to say that that factor would be markets for the materials. We have faced a situation where in regard to labeling plastics, in particular high density polyethylene, where I have walked through a supermarket with newspaper reporters trying to teach them how you determine which materials can be collected. It is very confusing because we can only

recover milk jugs and soda bottles because of our markets that we have there at that time; however, one of the neighboring counties does have a collection program for mixed HDPE.

So the availability of the markets for the materials would be the key issue.

Senator GORE. I saw a newspaper article I guess about a month ago in the business section of one of the national newspapers. It was about the newsprint recycling industry. Some of you may have seen it. It talked about these business people trying to decide whether or not to invest large sums of money in recycling mills, and there was one question they had on their minds, the answer to which would determine whether or not they invested the money. The question was, is this recycling thing a fad that is going to go away soon, or is it here to stay?

One of the principal accomplishments we hope that will come out of this legislation is to send a message loudly and clearly that recycling is here to stay. It is an accurate message because the American people are determined to make this effort work. They have long since been totally convinced that what we are doing now is just ridiculous. We need to stop making so much garbage in the first place, and we need to be recycling all that we can.

We could go on with questions for this panel because it is such an interesting panel, but we have another panel, and we have to finish up at a reasonable hour. So thank you very much. We may have some questions for the record, and I hope you will be willing to respond to them for the record.

Thank you all very, very much.

Let me call our second and last panel to the witness table now: Mr. Kurt Koenig, President of Commercial Polymers, Inc. in Denver, CO; Mr. Red Cavaney, President of the American Paper Institute based in Washington; Mr. Bradley Currey, President and CEO of Rock-Tenn Company based in Washington; Mr. Chaz Miller, Director of Recycling with the Glass Packaging Institute, again based in Washington; and Dr. Deborah Anderson, Director of Environmental Coordination at Procter & Gamble, based, of course, in Cincinnati, OH.

We are just delighted all of you could come. As with our first panel, your statements will be included in the record in full without objection, as is our custom, and we will proceed in the order in which you were introduced.

Mr. Koenig, if you could lead us off we would appreciate it.

STATEMENT OF KURT KOENIG, PRESIDENT, COMMERCIAL POLYMERS, INC., DENVER, CO

Mr. KOENIG. Thank you, Mr. Chairman and Senator Gorton. I would like to thank you for the opportunity to address the committee this afternoon. We really appreciate the recognition of the committee and Senator Gore on the leadership that is going to be necessary for the success of recycling in the United States. We heartily endorse S. 1884. We would like to see it enacted into law in most of the major provisions provided. It is a logical and sensible step that is going to lead the private industry to the solutions that are necessary to make this a successful solution to recover valuable commodities that we are now throwing away.

I would respectfully address the committee with specific regard to the plastics business. My name is Kurt Koenig. I am the President of Commercial Polymers, Incorporated based in Denver, CO. Our company is in existence because of plastic recycling. We are a processor. We take the postconsumer scrap material, clean it and sell it to people that are manufacturing end products.

I would like to inform the committee and the people here today that our situation is a little bit different from that which has been expressed previously by some of the distinguished members. We are in a situation where the demand

is so great we cannot fulfill the orders we now have on hand, and we have not yet even been trying to push out. We have been contacted by 22 states to try to locate our facilities within their boundaries as soon as possible to handle the plastic component of their waste stream. Eight of those states are pursuing us very vigorously to get this done. The demand is there for that particular product.

We need standards, though. In 22 states I have 22 different regulations, regulatory authorities, to handle. It gets quite confusing. We need some guidelines set. The Federal Government specifically is the authority to set those standards.

We are also in a position to know that it should come under Commerce's authority to do this. What we are really talking about here is not waste. We are talking about a recoverable commodity, a commodity of Commerce. This is material that can be used productively and, as such, as see it as a provision of Commerce and not of the EPA or other regulatory in the solid waste, because it is not becoming waste. It is being recovered.

We would like to see within the provisions of the bill at least a couple items to be addressed. In the labeling, we think that the provision to be marked "recyclable" needs to be addressed and needs to be promoted. That is part of the advertising component of this bill, advertising it as a form of consumer education and acceptance. We do not see, however, where an item should necessarily be marked "nonrecyclable." Just the fact that it is not will be a key point to the consumer that this item is not yet in compliance with the standards set by the Federal Government.

We would also like to see in section 14 that plastic be included in the procurement and the source and separation and segregation of the Federal Government. It was omitted, but we would like to see not only plastic but all the materials that come under the provisions of the bill be included within that area.

Also in section 17 in regard to the civil suits, we would like to suggest there are other alternative methods for restrictive actions or penalties already provided for in some of the other bills that have currently been passed or previously been passed into law. Our experience comes from a piece of legislation that was passed in May of 1989 in Colorado. It was an entirely proactive bill supplied in the record to the committee indicating that the state recognized recycling, specifically in plastics, promoted it, and gave various incentives for the manufacturers to start working with it. I would like to express to you some of the results of that legislation.

18 to 20 months ago is when we were founded. At that time, the State of Colorado collected less than 250,000 pounds of plastic for the entire year. Last month they collected 250,000 pounds of plastic.

We had one collector in the state 18 months ago. We have ten now with ten more coming on, and other industrial collectors are starting to participate in these methods.

We are a voluntary state. There are no deposits, so when the State legislation and the promotion of the recycling quotient in the United States started coming to the forefront through the advertisement, through the publicity, the people responded; but they do need guidance, and they need standards. We think that Senator Gore's bill provides that. We support it. We would like to see it enacted into law.

I will be happy to answer any questions before the committee.

[The statement follows:]

STATEMENT OF KURT F. KOENIG, PRESIDENT, COMMERCIAL POLYMERS INC.

We firmly believe it is in the best interests of our country to recover and use as many of our material resources as possible. Our company, Commercial Polymers Inc., is in the business of recovering and processing post-consumer and industrial plastic scrap. Our goal is to process plastic scrap back to a clean form which can be productively used for manufacturing finished products. We are located in Denver, CO, and will be expanding very shortly into other states.

The recycling of post consumer plastic is a new industry. As with all new industries it needs strong support and promotion. The ability of Congress to uniquely influence and stimulate economic activity and interstate commerce can have a direct and positive correlation on the successful expansion of the plastic recycling industry.

We are a small company, less that 2 years old. Yet we have been contacted by 22 states as to our capability to install and operate our processing facilities for post consumer scrap plastic. We have seen where legislation, when it is favorable, has assisted in the acceptance and expansion of recycling activities.

Our experience to date indicates that proactive legislation is much more effective in the promotion and expansion of the recycling industry. The recognition, identification, incentive to purchase recycled materials, and financial incentives to put processing equipment to use, have proved to be viable in our own state of Colorado. Our legislation, signed in law in 1989, was a proactive effort. We have voluntarily come to Washington, D.C. to request that you enact a similar bill, S.1884, into law with the same proactive purpose in mind. By doing so, you take a leadership role in focusing information and positive action on the eduction and development of the recycling industry.

For the recycling industry to be economically successful the three components of the industry must all be self-supporting. These components are: collection, processing, and the use of the recycled material. All of these factors must function financially for the system to work. "Two out of three" in this case won't make the grade.

To effectively implement collection and processing of recyclable material the general population needs to be educated and informed as to what can be recycled. In Sections 3, 4, 5,6, and 7, the information that the Secretary of Commerce would provide enables the recycling industry to concentrate and respond to a directed set of guidelines. These standards would be consistent throughout the U.S.

A uniform standard for labeling as suggested in Section 8 of S. 1884 gives an identifiable benchmark to processors and manufacturers. However, the collection standard is much more difficult to address. Take the case of new materials that are identified for recycling. It takes time to develop and implement the education, collection and processing facilities. The development of finished product markets could be prohibitive if the initial products produced with the recyclable material had to be labeled "NON-RECYCLABLE" until it achieved the 10% threshold. We suggest that in keeping with the theme of proactive legislation this portion concerning restrictive labeling be reconsidered. The proactive labeling informing people that the item is recyclable should be kept. The negative context should be dropped.

There currently exists a labeling structure in the plastics industry 'formulated by the Society of Plastics Industry (SPI). We would hope since we and others are incorporating these symbols into our educational efforts these labels and symbols would be adopted within the intent and provision of S. 1884. We would find it counter- productive to switch to an alternative labeling structure.

The adoption of a federal procurement policy as outlined in Section 9 would quickly galvanize the plastics market. The use of bid preference as well as material standards would result in a very rapid economic expansion of recycled plastic products. A further suggestion: require the procurement guidelines to cover "recycled plastic products" instead of just "containers and packages." The market for recycled plastics products is much larger than the bills' current language implies.

The affirmative procurement program is an excellent vehicle to insure that maximum effectiveness is achieved.

If we can utilize the added savings and value of the recycled materials, the provisions of Section 10 will allow the profitable export of recycled materials and products within the existing programs of the State Department and Secretary of Commerce.

Section 12 is a reaffirmation of the publication and distribution of information necessary to inform and promote our nation's recycling efforts. It is a logical extension of several previous sections efforts. And without advertising the program s progress, market expansion is more difficult.

Section 14 is a necessary recycle component of S. 1884. The public interest will be much more inclined to recycle if the federal government assumes a leadership role in the collection and material segregation of recyclable materials. The efforts of the federal program would lend support and credibility to the entire recycling sector. However, currently this section does not include plastics, and we suggest that plastic scrap should be included.

The interagency working group mentioned in section 16 would be necessary to insure consistent application of the guidelines, and compliance with the provisions of S. 1884.

It has been pointed out that Section 17 has been included due to other precedents in bills and laws that have proceeded S. 1884. I respectfully, request in keeping with the theme of proactive legislation that this portion be revised or omitted. S. 1884 intent is to promote the recycling industry. If it is

necessary to enforce compliance within this market sector, there are existing formats for restrictive actions or penalties. We would have S. 1884 be a totally proactive bill to maximize its success upon implementation.

We have tried to address the major elements of Senator Gore's bill as to its effectiveness, impact and potential success in promoting the expansion of the recycling market. Our remarks are guided by our experiences in the plastics market. We know we are on the threshold of an exciting new industry. Plastics Recycling has the capacity for creating thousands of new jobs, utilizing valuable resources, controlling a portion of the solid waste problem, and generating savings and profits for both the private and public sector. We support Senator Gore's bill and would like to see it enacted into law.

Thank you

Senator GORTON. [Presiding] Mr. Cavaney, you are next on the list.

STATEMENT OF RED CAVENEY, PRESIDENT, AMERICAN PAPER INSTITUTE; ACCOMPANIED BY BRADLEY CURREY, PRESIDENT AND CEO, ROCK-TENN CO. ON BEHALF OF AMERICAN PAPER INSTITUTE AND PAPER RECYCLING COALITION

Mr. CAVENEY. Senator, given the lateness of the hour, what I would like to do is cede my time to Brad Currey, who is the Director of the American Paper Institute and who will speak on behalf of the entire industry.

Senator GORTON. You are permitted to do so.

Mr. CURREY. Thank you, Senator. My name is Brad Currey. I am here today representing the American Paper Institute, the national trade association of the pulp, paper and paperboard industry. I am accompanied by Red Caveney to my left, the President of the American Paper Institute, and Basil Snyder, who is in the audience, Vice President of Recycled Newsprint of Media General, Inc.

I am also here as a spokesman for the Paper Recycling Coalition, a group of recycled paper manufacturers, all members of API which includes Rock-Tenn Company, of which I am President and Chief Executive Officer. Just to get it in the record, as you might have figured out by now, Rock-Tenn Company is headquartered in Norcross, GA, not Washington, DC.

The API member companies in Tennessee operate 11 mills which process 650,000 tons of recovered paper annually. One of those is our mill in Chattanooga that will run about 130,000 tons per year. Our API member companies in the State of Washington own and operate eight mills which consume 225,000 tons of recovered paper annually.

We are pleased to appear before the Consumer Subcommittee and particularly pleased that Senator Gore is serving as chairman of this hearing. We applaud both of you for taking leadership roles in the development of S. 1884 as a means of fostering increased recycling of valuable raw materials. All of us realize that we are running out of affordable and acceptable disposal sites. As a Nation we must employ a variety of means to reduce the amount of materials which we are discarding into the waste disposal stream.

As Senator Gore stated at the beginning of this hearing, recycling is an important means of reducing the volume of waste. Recycling is any process by which materials which otherwise would become solid waste or materials recovered by the solid waste stream are separated, collected, processed and reused or returned as a product in the marketplace. Recycling is thus a process or, as the word implies, a cycle. No one element is recycling in itself, but if any element is missing there is no recycling.

Many materials have the potential to be recycled. A piece of paper or an aluminum can can theoretically be recycled, whether it is placed in a separate container or dumped in a garbage truck. It does not begin the process of being

recycled until it becomes a recovered material. Recovered material consists of recyclable materials which have been diverted or removed from the solid waste stream. When a product is made out of recovered material, the recycling process is completed.

Today in the U.S., there are approximately 600 mills producing pulp, paper, paperboard or related products. 200 of these mills depend almost entirely on recovered paper for their raw material supply. Another 300 paper mills use between 10 and 50 percent recovered paper in their manufacturing process.

As manufacturers, we utilize recovered paper as a fibrous raw material in the production of our paper products. We process millions of tons of recovered paper at our mills every year. We do not use one pound of solid waste. Oftentimes recovered paper fiber is called wastepaper, but it is not waste. In most cases these raw materials are diverted or source separated from the waste stream and thus never become solid waste.

Our industry's objective is to maximize paper recycling to the fullest extent economically and technologically feasible. This unequivocal commitment to recycling is perhaps best exemplified by the industry's history and the recently announced 1995 goal to recover for domestic recycling and export 40 percent of all the paper Americans now consume.

It is important to recognize where we are today in recycling. Last year the paper industry recovered 27 million tons of paper which otherwise would have required disposal. During that period, virtually every mill was operating at capacity. The U.S. paper industry views collection and the recovery of high quality paper to be the long term challenge in achieving maximum paper recycling rates. Domestic consumption of recovered paper is growing impressively. In fact, today 48 planned expansions that will utilize recovered paper including eight new mills have been publicly announced, and over the next three years recovered paper consumption by U.S. mills will grow at a rate twice that of virgin fiber.

It is with all of this background and commitment to recycling that API member companies have assessed the provisions of S. 1884. In general terms, we support the objective of the bill to promote the expanded use of recovered materials. We would, however, offer some initial suggestions for strengthening the proposal, and we look forward to working with you all to review and modify the definitions in the bill so they can better achieve the intended objectives.

As Senator Gore has earlier suggested, definitions can be problems both as to intent and detail. The terms "recycling" and "recycled goods" are defined in this bill in such a manner as, in our view, to have the unintended result of requiring high quality paper fiber to be mixed into the solid waste or refuse stream in order to qualify as recycled material. The emphasis must be placed on diverting as much material as possible from disposal, not on whether it has first become solid waste.

The concept of recovered materials should be expressed in any Federal legislation. The term "recovered materials" means those materials which have a recognized use, reuse or recycling potential and which have been removed or diverted from the solid waste stream. We support a national promotional campaign to educate the public on the need for the recovery of materials of the highest quality. S. 1884 provides the basis for the Department of Commerce and other Federal agencies to undertake and support such a national effort.

The paper recycling industry, of which our company is a part, is facing legislation in almost every state which individually use conflicting definitions. That has been brought out by a number of people earlier in these presentations.

There is no uniformity. There is a critical need for national uniform definitions and terminology.

The industry also has serious concerns with section 5(d) dealing with grade specifications and recyclable commodities. The existing system for developing and adopting grades and specifications is well established and working. We have concerns about a mandatory labeling program. Use of a label ought to be voluntary, although users should obviously be held accountable for any product attributes or claims associated with any label, even voluntary labels.

Since the early 1970s paper companies, especially those of us in the recycled paperboard industry, have promoted the use of the paper recycling symbols to identify recycled and recyclable paper products. As a result, the three chasing arrows emblem has become universally recognized as signifying recycled or recyclable paper and paper products.

We concur with Senator Gore that there is an important role for the Department of Commerce. The Department could be most helpful in studying and developing methodologies to identify and to respond to factors which affect the size of the foreign market. We also strongly support the concept of a source separation program for Federal offices as advanced in section 14 of the bill.

Mr. Chairman and Senator Gorton, the U.S. paper industry is proud of its unparalleled recycling record. As this Nation strives to expand recycling as a means to divert waste material from disposal, we are committed to maximizing paper recycling to the fullest extent possible. We appreciate the opportunity to present our views and look forward to a continued dialogue with the committee and its staff toward the development of sound public policy that will help us achieve that objective.

Thank you, sir.

[The statement follows:]

STATEMENT OF BRADLEY N. CURREY, JR, ON BEHALF OF AMERICAN PAPER INSTITUTE AND THE PAPER RECYCLING COALITION

Mr. Chairman, Members of the Committee: My name is Brad Currey, and I am here today representing the American Paper Institute (API), the national trade association of the pulp, paper and paperboard industry. I am accompanied by Red Cavaney, President of the American Paper Institute. The American Paper Institute, is comprised of approximately 175 member companies. These companies account for over 90 percent of this industry's domestic manufacturing output. I am also here as spokesman for the Paper Recycling Coalition, a group of recycled paper manufacturers which includes The Rock-Tenn Company, of which I am the President and Chief Executive Officer, Garden State Paper, Halltown Paperboard Company, The Newark Group, Newman & Company, Inc., Packaging Corporation of America, Sonoco Products Company, Southeast Paper Manufacturing Company, and Waldorf Corporation.

Each company in the coalition is an active member in good standing of the American Paper Institute. I served as the immediate past chairman of API's Recycled Paperboard Group and currently serve as a member of the Board of Directors of API.

The API member companies in Tennessee own and operate 11 mills which consume 650,000 tons of waste paper annually. Our API member companies in Washington own and operate 8 mills which consume 225,00 tons of waste paper annually. In addition, we anticipate exporting 400,000 tons annually to foreign countries.

I am pleased to appear before The Consumer Subcommittee and particularly pleased that Senator Gore is serving as chairman of this hearing. Senator Gore has a long-standing history of leadership in Congress on environmental issues. We applaud you for again taking a leadership role in the development of S. 1884 as a means of fostering increased recycling of valuable raw materials. We also want to pay tribute to this Committee for conducting this hearing and encouraging a broad based discussion of the role of recycling in our economy.

S. 1884 is one of the more comprehensive bills encouraging recycling which has been introduced in this Congress.

All of us realize that our nation is facing a solid waste disposal crisis and we are running out of affordable and acceptable disposal sites. As a nation, we must employ a variety of means to reduce the amount of materials which we are discarding into the waste disposal stream.

WHAT IS RECYCLING?

Recycling, is an important means of reducing the volume of materials which must be disposed. As we consider recycling legislation, we must understand the working meaning of this term. "Recycling" is a term whose meaning on the surface appears to be very simple and straightforward. Throughout my testimony and the in the materials submitted for the record, I will show that recycling is actually a complex process with many technical and economic components. In practice, "recycling" means any process by which materials which would otherwise become solid waste or materials recovered from the solid waste stream are separated, collected, processed, and reused or returned as a product in the marketplace.

Recycling is a process, or as the word implies, a cycle. No one element is "recycling" in itself. But if any element is missing, there is no recycling. Yet we tend to view each of these elements—separation, collection, processing, and returning to use as a raw material—as "recycling." Recycling is completed when the recovered material is used in the manufacturing of a product. The many witnesses appearing before you today represent a cross-section of the recycling industry. While, we all play an important role, no one of us, on our own, is the recycler.

Many materials have the potential to be recycled. A piece of paper, or an aluminum can, can theoretically be recycled—whether it is placed in a separate container, or dumped in a garbage truck. It does not, however, begin the process of being recycled until it becomes a recovered material. Recovered materials consists of recyclable materials which have been diverted or removed from the solid waste stream. When a product is made out of a recovered material, the recycling process is completed.

HOW OUR INDUSTRY OPERATES

Today, in the U.S., there are approximately 600 mills producing pulp, paper, paperboard or related products. Two hundred of these mills depend almost entirely on recovered paper for their raw material supply. Another 300 paper mills use between 10 percent and 50 percent recovered paper in their manufacturing process.

As manufacturers, we utilize recovered paper as a fibrous raw material in the production of new paper products. We process millions of tons of recovered paper at our mills each year. We do not use one pound of solid waste. Often times recovered paper fiber is called waste paper, but we do not consider it to be waste. We are not a waste industry. In most cases, these raw materials were diverted or source separated from the waste stream. Therefore, they never became solid waste. In addition, some of our raw materials are recovered from the solid waste stream—for example, old corrugated containers. In each case they are recovered materials. In every case, when these recovered materials arrive at our facilities, they are processed and used. Every pound of recovered material—either pre- or post-consumer discards—that we use otherwise would have been solid waste and required disposal.

SUPPLY AND DEMAND

Our industry's objective is to maximize paper recycling to the fullest extent economically and technologically feasible. This unequivocal commitment to recycling is perhaps best exemplified by the industry's history and the recently announced 1995 goal to recover—for domestic recycling and export —40 percent of all paper Americans consume. That will constitute approximately 40 million tons of recovered paper, nearly 50 percent more than was recovered in 1989. Achieving our 40 percent goal will require the cooperation of the public sector and the participation all Americans.

The paper recycling industry customarily acquires its supply of recovered materials from well established collection and processing operations. Recently, many communities have instituted mandatory curbside source separation. In most instances, curbside programs collect newspapers. Once these papers are collected, the municipality takes on the unaccustomed role of marketing recovered materials rather than disposing of solid waste. However, we can only consume a given amount of recovered materials. Consequently, we purchase materials of the highest quality. The highest quality is most commonly obtained through established commercial channels. In some instances, our companies are the collectors and in other cases, we depend upon private or public/nonprofit organizations.

To give you a sense of the magnitude of the industry's involvement in paper recycling, in 1989, 27.6 million tons of recovered paper were collected in the U.S. for reuse at home and abroad. During that period, virtually every mill was operating at capacity. Based on the planned expansions in domestic recycling capacity, and the projected growth in recovered paper exports, the U.S. paper industry views collection and the recovery of high quality paper to be the long-term challenges in achieving maximum paper recycling rates.

Domestic consumption of recovered paper, is growing impressively. Across the country, substantial investments are being made by domestic producers to expand recycling capacity. In fact, today, 48 planned expansions that will utilize recovered paper—including eight new mills—have been publicly announced. In all, over the next three years, recovered fiber consumption by U.S. mills will grow at a rate twice that of virgin fiber.

COMMENTS ON S. 1884

It is with this background and commitment to recycling that API's member companies have assessed the provisions of S. 1884. In general terms, we support the objective of the bill to promote the expanded use of recovered materials.

S. 1884 offers the committee a significant basis for consideration of recycling issues. As you begin this process, we are concerned that the terms "recycling" and "recycled goods" are defined in such a manner as to have the unintended result of requiring high quality paper fiber to have been mixed into the solid waste or refuse stream in order to qualify as a recycled material. In other words, it would have to be co-mingled with a potential loss of quality. It is essential that any pending legislation recognize this concern. The emphasis must be placed on diverting as much material as possible from disposal—not on whether it has first become solid waste. We look forward to working with you to review and modify the definitions in the bill so that they can better achieve the intended objectives.

It is important that the concept of recovered materials be expressed in any federal legislation. Recovered materials means those materials which have a recognized use, reuse, or recycling potential; can be feasibly used, reused or recycled; and have been diverted or removed from the solid waste stream for sale, use, or reuse. The goal of federal legislation should be to divert materials from waste disposal and that all uses, reuse, and manufacturing should "count" toward that goal. In general, the paper machine cannot tell the difference between the sources of its furnish. More importantly, neither can the landfill.

One issue we hope will be revisited is the rigidity with which the postconsumer and pre-consumer distinction is viewed. Over the next five years, most of the growth in paper recovery will come from the postconsumer stream. And, as noted earlier, post-consumer recovered paper will soon account for as much as 75 percent of all that is recovered. Given these facts, we question the practical significance of making post- and preconsumer waste paper distinctions in procurement preference or other government programs.

We support a national promotional campaign to educate the public on the need for the recovery of materials of the quality. S. 1884 provides the basis for the Department of Commerce and other federal agencies to undertake and support such a national effort. This effort is essential and critical. We applaud your understanding of the private/public partnership necessary to increase recycling.

Today the paper recycling industry is facing legislation in almost every state which individually use conflicting definitions. There is no uniformity. Consequently, mills are having difficulty meeting specifications when they market materials and products in multi-state areas. There is a critical need for national uniform definitions and terminology.

The industry also has serious concerns with Section 5(d) dealing with grade specifications and recyclable commodities. We view this subsection as establishing a process which—at least with respect to paper and paperboard—will not facilitate recycling but will more likely restrict a very dynamic process. For example, some commodities such as magazines, which historically have been recycled in limited tonnage to make building products and panelboard, are now essential to the newly installed "flotation" process at some mills that de-ink old newspaper to make new newsprint. Additionally, many paperboard boxes use a variety of pre- and post-consumer recovered materials in order to reach the necessary fiber mix to ensure compliance with customer specifications such as strength. The existing system for developing and adopting grades and specifications is well-established and working. To require the Department of Commerce to intrude directly in this system would be damaging to interstate and foreign commerce.

We have concerns with a mandatory labelling program. Use of the label should be voluntary, although users should obviously be held accountable for any product attributes or claims associated with any label-even voluntary ones. We particularly object to the requirement that nonrecyclable products be labelled; this is simply unnecessary, as well as potentially misleading.

The export market is an important factor in absorbing the increasing supply of recovered materials. Domestic consumption is increasing fairly steadily and should provide additional markets. However, foreign market demands, while increasing significantly in recent years have a history of being unstable. The Gore bill, S. 1884 anticipates an expanded role for the Department of Commerce. We concur with Senator Gore that there is an important role for the Department. The Department could be very helpful in studying and developing methodologies to identify and respond to factors which affect the size of the foreign market. These factors are, for example: the stability of foreign markets; the availability of transport containers; the value of the dollar; and, most importantly the current and projected demand and specifications for fiber. While we recognize that there will be an increase in the export of recovered materials, we are concerned that the recovered material and fiber needs of the domestic industry continue to be met.

We also suggest that the Department of Commerce maintain its program to acquire and provide a database on current exports of recovered materials as well as products with recycled material content. We will be pleased to work with the committee to identify existing information sources, as well as to identify those areas where additional data-gathering would be particularly useful. We also strongly support the concept of a source separation program for federal offices as advanced in Sec. 14 of the bill. A federal source separation program will not only generate needed raw material, it can also serve as a model for expanded source separation initiatives in private and congressional offices.

Since the early 1970's, paper companies have promoted the use of the paper recycling symbols to identify recycled and recyclable paper products. As a result, the "three chasing arrows" emblems (copy attached) have become universally recognized as signifying recycled/recyclable paper products.

While the symbols have been used primarily by U.S. manufacturers of recycled paperboard made from 100 percent waste paper, API is currently in the process of developing further guidance for using the recycled/recyclable symbols for the full range of paper products. For example, for products to be labeled recyclable, we are working on two criteria, one addressing what is technically recyclable and the other dealing with the viability of product's recovery system, that is, whether or not an infrastructure actually exists to recover the product for reuse.

Mr. Chairman and members of the committee, the U.S. paper industry is proud of its unparalleled recycling record. As this nation strives to expand recycling as a means to divert waste material from disposal, we are committed to maximizing paper recycling to the fullest extent possible. We appreciate this opportunity to present our testimony and look forward to a continued dialogue with this committee and its staff towards the development of sound public policies that will help us achieve that objective.

Senator GORE. [Presiding] Thank you very much. We will have some questions afterwards.

Mr. Chaz Miller is our next witness. He is Director of Recycling for the Glass Packaging Institute.

Welcome, and please proceed.

STATEMENT OF CHAZ MILLER, DIRECTOR OF RECYCLING, GLASS PACKAGING INSTITUTE

Mr. MILLER. Thank you, Mr. Chairman. As the Director of Recycling for the Glass Packaging Institute, I would like to express my appreciation for this opportunity to voice the glass container industry's support for recycling.

GPI represents companies that manufacture glass containers for a wide range of product lines, including food, beer, soft drinks, wine, toiletries, perfume, cosmetics and medicine. Currently, recycled glass comprises 30 percent of every glass container produced in the United States. Cullet, or broken glass, is one of the four principal ingredients in each glass container. While sand, limestone and soda ash are domestically plentiful, certainly the more cullet that we use, the less dependent we are on virgin materials. Cullet allows us to reduce the temperature of our furnaces and provides real incentives in both energy savings and in prolonging the life of our furnaces and other glass manufacturing equipment.

It is fair to point out that currently the only raw material that we use to a higher extent than cullet is sand, and as our recycled content rate continues to rise I think that eventually cullet will be our largest raw material. We certainly want to use as much cullet as we can.

I believe that S. 1884 will do much to improve our Nation's ability to increase recycling. The bill fills in gaps where recycling does need help. I would like to offer a few comments on some specific provisions of S. 1884.

First is the definition of recycling. Recycling is a remanufacturing process. Section 19 of the bill defines recycling; however, I believe it fails to give a strong definition of recycling, and it fails to distinguish between primary and secondary recycling or, as environmentalists put it, true recycling and cascading.

In primary recycling, a material is made back into the same material. Making glass containers into glass containers or newspapers back into newspapers are very good examples of primary recycling.

In secondary recycling products are made into other products that may or may not be recyclable. Many secondary uses or products are admirable, but when the yo-yo or ski jacket gets thrown away will it be recycled or is the original product simply been delayed on its way to the landfill or the incinerator?

Our definition of recycling is the remanufacturing or reprocessing of discarded materials into the same product again and again and again. We believe the materials that can be recycled in this manner will provide a greater impact in lowering the amount of solid waste being landfilled or burned the materials that can only be recycled once and then thrown away.

As an industry, we know that our product is 100 percent recyclable. We also know that we can only recycle color sorted and contaminant free container glass. Unfortunately, some recycling collection systems and some processing systems do not collect and process recyclables in the most efficient contaminant-free manner. Collection or processing systems that do not deliver raw materials that meet industrial raw material specifications will not lead to higher recycling rates or higher recycled content rates.

As a result, I am especially heartened by the inclusion in this bill of the provisions in section 9 for guidelines for the procurement and use of waste glass in the construction of highways, roadways and other paved surfaces. In glassphalt, cullet is mixed with aggregate to create an asphalt-with-glass mixture. Currently, glassphalt is in wide use in New York City and other locations, including Baltimore. Glassphalt is a very constructive way to use contaminated cullet. It provides a market for cullet that we cannot use because it does not meet our industrial specifications.

The issue of industrial specifications in section 5 we think raises a potential problem with the bill. Industries involved in using secondary materials as a raw material are the proper entities for developing specification for recycled materials. We do not believe it is necessary for the Federal Government to write raw material specifications for industry.

Finally, section 8 of the bill includes provisions for a Federal labeling program. While we believe that a Federal program will be far less confusing than a State program, please do not underestimate the complexity of implementing a workable labeling program. Manufacturing packages and distributing products in those packages is a complex business. It is not only a national business but in many cases it is an international business with packages both coming into this country and going out of this country.

Worse yet, most of the proposed State level programs are written to require different levels of recycled content for competing packages. In other words, to meet recycled content requirements, one type of container may require 35 percent postconsumer recycled content rate, while its competitors may only require 15 percent postconsumer recycled content rate. If this kind of environmental imbalance is allowed to remain, food and beverage companies will be likely to switch to packages that require the least amounts of recycled content.

You raised the question earlier of recycling rate standards. Frankly, we think it would be unfair, for instance, for us to have a higher recycled rate standard than our competitors. Environmentally, it would mean that they simply would not have to do as much as we would have to do, and we do not think that is a level playing field environmentally.

As I stated earlier, American glass container manufacturers now use cullet as 30 percent of our raw material requirements. Increased use of cullet has come largely through curbside collection programs. As the number of curbside programs expands, our goal of 50 percent cullet usage is achievable. The glass container manufacturing industry is a recycling industry. We are part of the solution. We manufacture a product that is 100 percent recyclable and which should never see the inside of a landfill.

America can become a world leader in recycling. The glass container industry intends to remain a key player in achieving that goal, and I thank you for the opportunity to testify.

[The statement follows:]

STATEMENT OF THE GLASS PACKAGING INSTITUTE

Mr. Chairman, distinguished members of the Committee, as Director of Recycling at the Glass Packaging Institute (GPI), I would like to express my appreciation for this opportunity to voice the glass container industry's support for recycling.

GPI represents companies that manufacture glass containers for a wide range of product lines, including food, beer, soft drinks, wine, toiletries, perfume, cosmetics and medicine.

GPI's member companies employ 43,000 men and women who operate glass plants in 25 states, including: California, Connecticut, Florida, Georgia, Illinois, Indiana, Louisiana, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Texas, Virginia, Washington, West Virginia, and Wisconsin. In 1989, our member companies recycled over 7 billion glass containers.

Mr. Chairman, Members of the Committee, recycled glass comprises over 30% of every container we produce. Recycling is an advantage we enjoy in the packaging industry because our container is 100% recyclable. We can take used glass containers and turn them into new glass containers again and again and again.

Cullet, or broken glass, is one of the four principal ingredients in each glass container. While sand, limestone and soda ash are domestically plentiful, the more cullet we use, the less we are dependent on virgin materials. Cullet allows us to reduce the temperature of our furnaces and therefore provides real incentives in both energy savings and in prolonging the life of our furnaces and other glass manufacturing equipment.

We want to use as much cullet as possible. As consumer awareness of environmental issues intensifies and as consumers realize that they can help create a clean environment by purchasing products packaged in 100% recyclable containers, we believe that our industry can only benefit. Clearly it is in our best interest to recycle and for Congress and the states to pass progressive, pro-recycling, solid waste management legislation.

I believe that S.1884 will do much to improve our nation's ability to increase recycling. This bill fills in the gaps where recycling needs help. Accordingly, I would like to offer a few comments on S. 1884.

1. THE DEFINITION OF RECYCLING.

Recycling is a remanufacturing process. Section 19 of S. 1884 defines recycling. However, it fails to give a strong definition of recycling and it fails to distinguish between primary and secondary recycling, or as environmentalists put it, true recycling and cascading. In primary recycling, a material is made back into the same material. Making glass containers into glass containers or newspapers back into newspapers are good examples of primary recycling. In secondary recycling, products are made into other products that may or may not be recyclable. Examples of this include plastic and cereal boxes made out of wastepaper. Many secondary uses for products are admirable, but when the yo-yo or the ski jacket get thrown away, will they be recycled or has the original product simply been delayed on its way to the landfill or the incinerator? Finally, "non-recyclable" materials are those products whose cost of collection, separation, processing and remanufacturing is greater than the value of the new product created in the recycling process. Collection, separation and processing alone are not recycling.

Our definition of recycling is the remanufacturing or reprocessing of discarded materials into the same product—again and again and again. We believe that materials that can only be recycled in this manner will provide a greater impact in lowering that amount of solid waste being landfilled or burned than materials that can only be recycled once and then thrown away. The beauty of glass recycling is that as long as we get the bottles back we can prevent them from going to a landfill forever.

2. PROCUREMENT GUIDELINES FOR WASTE GLASS.

As an industry, we know that our product is 100% recyclable. We also know that we can only recycle color-sorted and contaminant-free container glass. Unfortunately, some recycling collection systems and some processing systems do not collect and process recyclables in the most efficient contaminant-free manner. Collection or processing systems that do not deliver raw materials that meet industrial raw material specifications will not lead to higher recycling rates or higher recycled content rates. In many cases these systems will fail because of poorly drafted RFPs or a desire to run collection and processing operations as cheaply as possible.

We are especially heartened by the inclusion in this bill of provisions in Section 9 for guidelines for the procurement and use of waste glass in the construction of highways, roadways, and other paved surfaces. In glassphalt, cullet is mixed with aggregate to create an asphalt with glass mixture. Currently glassphalt is in wide use in New York City and other locations. Glassphalt is a constructive way to use contaminated cullet. It provides a market for cullet that we cannot use because it does not

meet our industrial specifications. It is far better that color-mixed or otherwise contaminated cullet go into glassphalt instead of being landfilled or incinerated. Other secondary markets for glass include glass beads for reflective paint, fiberglass, abrasives and the use of glass in the construction industry as a cover with a French drain. These markets all show a creative use of materials that would otherwise be disposed of.

3. INDUSTRIAL SPECIFICATIONS FOR SECONDARY MATERIALS.

The issue of industrial specifications in Section 5 raises a potential problem with S. 1884. Industries involved in using secondary materials as a raw material are the proper entities for developing specifications for recycled materials. It is not necessary for the Government to write raw material specifications for industry.

4. LABELLING REQUIREMENTS.

Finally, Section 8 of S. 1884 includes provisions for a Federal labelling program. While we believe that a Federal program will be far less confusing than a state program, do not underestimate the complexity of implementing a workable labelling program. Manufacturing packages and distributing products in those packages is a complex business.

Worse yet, most of the proposed state-level programs are written to require differing levels of recycled content for competing packages. In other words, to meet recycled content requirements, one type of container may require a 35% post-consumer recycled content rate while its competitors may only require a 15% post-consumer recycled content rate. If this kind of environmental imbalance is allowed to remain, food and beverage companies will switch to packages that require the least amounts of recycled content.

Mr. Chairman, we believe that our industry is a proactive player in the solid waste arena. We believe we have led the way to creative solutions to America's solid waste problems. We were the first industry to endorse EPA's 25% recycling goal. In 1983, we organized The Nickel Solution, which is a joint labor-management program to promote glass awareness and glass recycling. The men and women of the glass industry fund The Nickel Solution through a ten cent per hour contribution. The program is administered by a Board composed of three union leaders and three management leaders. In the last four years alone, the Nickel Solution has more than 20 million dollars to promote recycling. The Nickel Solution funded recycling booklets, videos, and other literature, which is distributed in all fifty states in support of glass recycling and comprehensive curbside recycling. Our publication, "Comprehensive Curbside Recycling: Collection Costs and How To Control Them", was cited by the USEPA as "an authoritative text for anyone starting a curbside program."

GPI and the Nickel Solution operate glass recycling programs in 33 states and the District of Columbia. Through these programs we are recognized as leaders in helping to solve the solid waste problem. We held seminars on curbside recycling for city and county officials in a number of states. We sent a copy of the New Jersey mandatory recycling law to every state legislator in America so that they could read a truly comprehensive state recycling law. We exhibit at conferences on solid waste issues throughout the nation.

However, all the recycling publications and videos in the world are little more than window dressing if our plants are not willing or able to take and use old bottles. This is why our members have installed special processors, called benefication systems in 27 plants nationwide, and have entered into contracts with private operators of processors that are not located at plants. These systems, which cost almost one million dollars each, take waste glass and process it into furnace ready cullet. These plants are the muscle behind our publications.

Problems remain. Curbside collection and other programs may deliver contaminated cullet. No economically efficient processing system exists which can mechanically color-separate glass or take ceramics out of delivered loads. We must find a better way to beneficiate cullet or to expand markets for contaminated cullet.

As I stated earlier, American glass container manufacturers now use cullet as 30% of their raw material requirements. Increased use of cullet has come largely through curbside collection programs. As the number of curbside programs expands, that our goal of 50% cullet usage is achievable.

We are a recycling industry. We are part of the solution. We manufacture a product that is 100% recyclable and that should never see the inside of a landfill. America can become a world leader in recycling. The glass container industry intends to remain a key player in achieving that goal.

Thank you for the opportunity to testify.

Senator GORE. Thank you very much.

Our final witness today is Dr. Deborah Anderson, Director of Environmental Coordination for Procter & Gamble.

Welcome.

STATEMENT OF DR. DEBORAH D. ANDERSON, DIRECTOR, ENVIRONMENTAL COORDINATION, PROCTER & GAMBLE, CINCINNATI, OH

Dr. ANDERSON. Mr. Chairman, thank you.

I am Dr. Deborah Anderson, Director of Environmental Coordination of the Procter & Gamble Company in Cincinnati, OH. I am speaking today as a member of our company's environmental quality team to offer our views on S. 1884. We are an international producer of the kinds of products that your bill covers such as foods, beverages, paper products, soaps and personal care products. We share the Chairman's commitment to the development of economically viable end user markets for recyclable materials. We appreciate his invitation to comment on these bills.

Today I am pleased to endorse S. 1884 and to offer a few suggestions. We will focus in very brief terms on three items: recycled material content of products; the benefits of composting as a specific form of recycling; and the real benefits of national uniformity.

Recycling waste and identifying all opportunities to use recycled materials in the production of our products and packages is a major effort in our company. We are proud that our foods plant in Jackson, TN reduced our landfill of waste by more than 70 percent in the last year by focusing on recycling and source reduction. That is a success story among western Tennessee manufacturers.

We have successfully produced and are rolling out Spic and Span liquid cleaner in a 100 percent postconsumer recycled PET plastic bottle, the first consumer product to be so marketed. We will be selling eight other products in packages made from at least 25 percent postconsumer recycled HDPE plastic. When rolled out, these initiatives will keep the equivalent of 80 million half gallon milk and water and 2- liter soft drink bottles out of the Nation's landfills.

Our Downy fabric softener refill pack currently in test markets will be a source reduction success story because it reduces solid waste by 75 percent. In addition, more than 90 percent of our paperboard containers are made from recycled paper. So a lot is being done, and we know much more can be done.

Mr. Chairman, Procter & Gamble supports your bill and encourages the subcommittee to adopt it, with a few modifications. Our support is the result of careful technical analysis as well as our extensive experience of listening to our consumers. The Chairman's proposals meet an important consumer need for understanding how the individual can contribute his or her part to solving our Nation's solid waste problems. We have seen that need in the calls on our 800 lines and in our consumer research.

The essence of any successful program should be to meet the consumer's desire to have environmentally sound products and packages, within definitions and standards that are technically and scientifically correct. The market can be driven in the right direction by consumer awareness and preference for products and packages that are recyclable, compostable, use recycled materials or reflect major source reductions.

I begin with a suggestion about recycling markets and their importance. We have been a pioneer among U.S. consumer goods manufacturers in using recycled materials in our packages. We share the views of many experts on recycling, views that the operators and promoters of recycling will also emphasize to you, that we must focus on the recycling system as a whole. We need to see it as a loop in which the three pieces—collection, processing and stimulation of end user markets—are interdependently linked onto another. There must be equal emphasis on development of all three pieces, the collection, processing and market and development. If one piece is not there, the whole thing falls apart.

The primary focus of much of section 5 of the bill is on the collection piece of the loop; that is, collecting packaging in an easier sorting manner by marking the containers with words or symbols. This is important.

We must have equal focus on recycled materials used in packaging and market stimulation by clearly focusing standards upon the claim "contains recycled materials" or the like.

Minimum content standards are important to the creation of credibility in the marketplace. The bill does have a content standards provision in section 8(i), page 21 of S. 1884, but it does not receive as much attention as the provisions on coding packages for sorting after collection. We urge that the bill give a higher priority to standards that will expand market incentives for use of recycled materials. Let us have a level playing field for claims of recycled product or packaging content through the use of standards, and let us do that promptly.

We also note that the middle of the loop, the processing loop between collection and development of end user markets, is omitted. We believe that when the commodity market for recycled goods is mature the market participants will include a definition of the quality standard for recycled materials such as different grades of HDPE.

To have a market there must be a value that can be set on a commodity. To set a value requires that we define the commodity. This middle step of defining the commodity means that when goods are extracted from the waste stream and processed as part of commerce, everyone engaged with them should know what the standard terms and definitions are, just as metal scrap processors have common industry terms for different grades of metals.

Using the powers given in the Chairman's bill, specifications for process recycled materials could be set by the Commerce Department in the same way that USDA sets commodity specifications for agricultural products of different grades.

So we encourage you to build recycling as a system and put equal emphasis on each of the three parts: collection, processing and stimulation of end user markets.

Moving on, we urge that the bill make clear reference to composting as a specific form of recycling, which it is. The definition of recycling in section 19 should include the making of compost with a postconsumer package or product. In a separate section the bill should empower the Commerce Department to set definitions for compostable commodities, including levels of any contaminants that would be permissible in material that is intended for composting.

Composting is a rapidly developing area of exciting technology, and it is an important aspect of recycling. We have been very pleased with the success of our pilot projects on municipal composting and the demonstrated ability to remove 30 to 60 percent of the organic materials in the current solid waste stream that do not need to be landfilled, including disposable diapers. We believe this technology should play a major role in development of effective, integrated solid waste management in the future.

One of the major items that is not yet included in the bill is nationwide uniformity for our nationwide objectives. Once there is a Federal standard in place for the nationwide products market, that standard should be applicable to all states and localities alike so that uniform packaging and labeling will be available to all consumers.

Multiple city or State labeling laws would produce a breakdown of consumer confidence. The increase of consumer confusion that would result from that balkanizing of the nationwide product market is unacceptable. There should be uniformity once the Federal agencies have carried out the bill's intent and have regulated affirmatively in this area.

There are 61 states, territories and the District of Columbia which have the authority to set up 61 different labeling criteria. We urge a national uniformity

amendment that would be triggered by the issuance of a Federal standard by the Secretary pursuant to this bill.

A few other issues should be taken into account: the timetable for regulations in section 5(a) should be lengthened.

Representatives of end user markets who are actually using recycled materials as we are should be added to the advisory committee in section 5(f).

The minimum size of containers for labeling should be the current 16 ounce size that is voluntarily in place now.

Measurement of volumes of recycling and composting should by validated methods.

Lastly, users of the very essential tamper-evident packaging that avoids criminal poisoning incidents should not be placed at a disadvantage.

P&G would like to thank you for this opportunity to comment on and show our support for S. 1884. Thank you.

Senator GORE. Thank you very much. I am certainly impressed with what your company has been doing and with your statement.

Over all, I do not think I can remember a hearing that has been more productive in terms of generating helpful suggestions for improving legislation. We have been taking careful note of the suggestions made, and we will be looking at various provisions of the bill.

Of course, we will not agree with every suggestion made, but many of them do make good sense.

Mr. Koenig, I apologize for being out of the room during part of your statement. I have read it in full, and I appreciate your endorsement of the legislation. It looks to me like your statement is on recycled paper. Is that right?

Mr. KOENIG. Correct.

Senator GORE. I thought that was right. I am not going to ask all the rest of you about that because you might ask us. You know, at present when you go to buy recycled paper your budget has to go up in many cases. That is not always true, but sometimes it is. In any event, we appreciate your statement.

Now Mr. Currey, speaking of recycled paper, one of the statements you made was that we should not require materials to come from the waste stream in order to be designated recycled. Right?

Mr. CURREY. Yes.

Senator GORE. Now your definition is what?

Mr. CURREY. We are asking you to focus on recovered materials from whatever source they are recovered. We recognize that your effort is to reduce the solid waste stream, the volume of what has to go to the landfill.

Senator GORE. Right.

Mr. CURREY. We would maintain, however, that if we had to take all of the material that we use in our recycled paperboard mills out of the solid waste stream, there would be two unintended results. One of those would be that we would have an awful lot of garbage in our paper, and we could not sell it to the likes of Procter & Gamble Company because they are not going to package their product in that sort of material.

The other one is——

Senator GORE. Wait a minute. Why are you going to put garbage in your paper?

Mr. CURREY. Because if we have to get it out of the solid waste stream, it is——

Senator GORE. Why can you not get it from paper that is collected and diverted from landfills and separated and saved to wait for somebody like you to come along and buy it?

Mr. CURREY. That is exactly the point. That is what we do now and what we would like to do in increasing quantity.

Senator GORE. Okay. That is the impression I had when you made your statement, but I am not sure that that is really all that your industry means when it says that.

There are really three categories here. There are probably more, but just to simplify my thinking about, and please correct me if I am wrong on this, but as I listen to you I conjure up an image of three different cases. One is where you go into a landfill and, like Dr. Rathje, you dig down into it and you get a big scoopful of garbage and then try to make paper out of that.

Mr. CURREY. No, we are not going to do that.

Senator GORE. All right. Another case is where you participate in a community's recycling program, and they have separated out paper and have it for sale, and you buy that paper that has been collected there so that it will not have to go into the landfill.

Mr. CURREY. We do that now in eight plants across the country, and there are many, many other plants——

Senator GORE. Okay. Now there is a third category, is there not? That is where you have a plant that is processing paper and some of the edges of the paper are cut off and fall to the floor, and just as you have done since the memory of man runneth not to the contrary, since before the word "recycling" was ever in our vocabulary, since before you ever thought about being environmentalist, purely and solely for good business profit reasons, you have always collected those pieces of paper.

Mr. CURREY. We bail that up, take it back to the mill and run it through——

Senator GORE. And you make paper out of it. Okay.

Now you think you ought to be able to call that recycled paper?

Mr. CURREY. Yes, sir.

Senator GORE. That is what I thought you were getting at. You have always done that, have you not?

Mr. CURREY. That is correct.

Senator GORE. When you do that and label it as recycled paper, some people might get the erroneous impression that you are helping to reduce the amount of paper that goes into landfills.

Mr. CURREY. That perception is not erroneous, Senator.

Senator GORE. I am not saying you ought not to collect it and use it. You should. But some people look at the label and they think, oh, these are really good guys. They are good guys anyway, but they are extra good guys because they are diverting paper that might otherwise go into a landfill, and they are making nice fresh paper out of it, and I really like that.

To the extent the recycled paper comes from your standard industry practice of using what you did not clip out efficiently the first time, they are being misled because that amount of the recycled paper is not reducing the quantity going into a landfill at all, is it?

Mr. CURREY. Senator, I would argue that it is in this respect. There are many, many independent converters of paper, printing plants, carton plants, corrugated box plants, newspapers. They are buying paper. They inevitably produce some amount of that material that is not usable, the cutouts in a box, for example, the slots in a partition. Those things have to go somewhere.

The way this bill is drafted, those independent converters that do not have a mill to which to bring them back on a backhaul like, for example, we have in our company, are going to have to put that material into the solid waste stream so

that it can be removed from the solid waste stream and then be able to be called recycled materials.

Senator GORE. What percentage of that mill broke is going to fall into that category?

Mr. CURREY. This is not mill broke. This is converting waste.

Senator GORE. Okay. What percentage of it would fall into that category with the small independents who do not have the capacity to use it again on their own? 1 percent?

Mr. CURREY. I do not know, but I would guess at least 50 percent.

Senator GORE. Now that is a subcategory of the particular part of the paper trail we are talking about, is it not?

Mr. CURREY. Yes.

Senator GORE. What percentage of the overall would that subcategory make up? Do you know offhand, Mr. Currey?

Mr. CURREY. I do not know offhand.

Mr. CAVENEY. Senator, maybe I can help. I understand why people are interested in differentiating between the two. At present, because of the tremendous volumes we already recycle, we essentially capture the lion's share of all that stuff.

The concern is not what happened in the past but going forward into the future. As you are aware from our 40 percent national recycling goal w are between now and 1995 going to double the amount of paper that we ycle. In that doubling that we are going to recycle, 90 percent of that new paper is postconsumer because we already get all the rest.

Senator GORE. Sure, because you are already getting the other, and you always have.

Mr. CAVENEY. That is right. The point is that if we cannot use that for technological reasons, that is going to have to go somewhere, and we are going to have to slip back. So all of our future work is going to be exactly what is intended.

Senator GORE. No, you will still use it. You will still use it anyway, will you not? I mean, you are not going to stop using it, are you?

Mr. CURREY. Let us take a case——

Senator GORE. You are not going to stop using it, are you? You used it before anybody worried about recycling. It is just good business sense.

Mr. CAVENEY. It does to a degree, Senator, but as Brad Currey explained to you, out in these converting plants independent people, separate from our mill, are going to have to compete again in the market with other things, and when you are in——

Senator GORE. That is a very tiny part of the overall problem we are talking about here unless I missed my guess. Now you can supplement your responses for the record on this, but you see my point, do you not?

To the extent that we are trying to build up incentives to go out and divert paper that would otherwise go into landfills and to the extent we are using this percentage and label requirement to give you an incentive to do it, we are defeating our purpose if we let you get all that credit for stuff that never is headed for the landfill in the first place and is going to be recovered.

You see my point, do you not?

Mr. CURREY. I understand your point exactly. I am just saying that if it goes from the converting plant into the solid waste stream before it can get back to the mill, then it is going to be of lower quality.

Now let us take a very specific product, claycoated news back. That is a grade of recycled paperboard made widely and used by people like Procter & Gamble for packaging soap, for example.

Claycoated news back usually is made as a minimum 65 percent of this what you would call preconsumer waste, and less than 35 percent or less—in one of our mills only 7.5 percent—is what you would call postconsumer waste. Now that is the highest quality product that the recycled paperboard industry can make, and it is the product that brings the best price. So everybody who can makes as much of that as he can his mills.

Now if you mandate that something cannot be called recycled unless it has 80 percent postconsumer waste as defined, then you are going to force us into using much lower quality raw materials, and you are going to make it more difficult for us to sell it.

Senator GORE. No, you can still use it. You can use it just as before. You just will not get the recycled price preference.

Now there may be some specialized subcategories where your point is persuasive, and we are anxious to work with you in identifying that, but let us level with each other about what we are talking about and not give you a special price preference for stuff that is not really going to reduce the amount going into the landfill.

Again, we are talking about three different categories, generally speaking.

Mr. CURREY. We understand.

Senator GORE. We just want to insure that those who are recycling according to the way most people assign a common sense definition to that word are getting the price preference and not those that simply continue already longstanding profitable practices that have no bearing whatsoever on the reduction of waste going into landfills.

We will work with you on that, and I think we have illuminated it a little bit here.

Mr. CURREY. Sir, we have been calling that recycling for 100 years that I know about.

Senator GORE. Yes, I know. Most people do not think of it that way. If they really understand what it is and if you are going to have a special price incentive—I think we have covered it.

Now we seem to be in some disagreement on the need for Federal standards among the witnesses. Mr. Koenig says he faces 22 different standards in 22 different states. Dr. Anderson speaks of the need to avoid these various standards that hurt the consumer marketplace. Mr. Miller points to the strides industry has made in developing standards on its own and claims Federal standards are not necessary. So there is disagreement among the panelists.

Is the provision of the bill that ensures industry participation and standard development sufficient to reach some of these concerns? I hope it is.

Mr. MILLER. Could I address that first, perhaps?

From 1976 to 1981 I worked in EPA's Office of Solid Waste Handling and Recycling Affairs. And at times I was EPA's Office of Recycling. And in July of 1981 I became EPA's former Office of Recycling. And the last thing I would have wanted to do at any time when I was handling the recycling for EPA was to tell industry what its specifications for materials were supposed to be for recyclables.

I think that is well beyond the purview or the desire of most officials to deal with. You are dealing with industrial issues. You are dealing with raw material specifications. And I simply do not think there is a necessity for the government to do that.

And secondly, I think it is fair to say that any kind of voluntary standard-setting mechanism—there is always ASTM and similar organizations where people can get together in a very neutral setting and hammer out specifications. And I think that is a far preferable method.

Senator GORE. Now of course your group is in a somewhat different situation than some of the others, too, and glass is in a little bit different posture.

Senator Gorton left a question which I will ask on his behalf to you, Mr. Miller. He says why do you seem to advocate breaking up and reformulating glass bottles rather than simply reusing and refilling bottles with the same product?

Mr. MILLER. We do not advocate either one. We sell what our customers will buy. If our customers will buy refillable containers, we will sell them refillable containers. The reality, however, is the market for refillable containers simply is not what it used to be.

As Mr. Hershkowitz pointed out in his testimony, you no longer have those local bottlers or those local brewers who can supply the immediate market for refillable containers.

I think it is fair also to point out the situation in Ontario in Canada, where the agreement between the provincial soft drink association and the provincial government requires that 40 percent of shelf space for soft drink containers be in refillable glass bottles. It requires that 50 percent of their marketing budget be for soft drinks in refillables. Yet the market share has declined to 24 percent and continues to go down.

Consumers simply are not interested in refillable containers. And that is the reality that we have to deal with.

Senator GORE. All right.

Dr. Anderson, let me say again how much I admire the leadership your company has provided in this area. I want to say it again because I want to underscore it. I think it really deserves recognition.

Dr. ANDERSON. Thank you.

Senator GORE. Now you discussed the importance of composting in your testimony, and suggest that the bill is not strong enough in its support of composting. On page 24 of the bill the Department of Commerce is directed to issue guidelines for the procurement and use of compost derived from food and yard waste.

I take it that in your opinion that provision is not sufficiently far reaching, and you would like to see it strengthened and more elaborate. Is that correct?

Dr. ANDERSON. Yes, sir.

I think what we are talking about here is that part of managing the solid waste issue is educating the American public. And if, when we say the word recycle, we just assume, as people who know more about it, that composting is included, that does not help educate the public, most of whom have never heard of composting or understand anything about it.

So I think it serves a very useful purpose to specifically state composting wherever you can throughout the bill to draw attention to that as an important piece of managing the solid waste issue.

Senator GORE. If you would be willing to work with our staff in suggesting ways to strength that provision of the bill, we would be very interested in getting your suggestions on that point.

Dr. ANDERSON. We would be happy to.

Senator GORE. Thank you very much.

And incidentally, to the other members of this panel and the one which preceded you, if you wish to put your specific suggestions into the form of

suggested language, we will be glad to use that as a reference point in further evaluating the suggestions that have been made during the hearing today.

I do think it has been especially productive. And as I said at one point in the hearing earlier, we consulted widely in formulating the bill originally and circulated it for comment among the many, many different groups. And I have the feeling that in the process we stimulated some new thinking on some of these questions and people who commented on it thought a little bit more about it and then came back and said, well, now maybe this can be strengthened a little bit. Or maybe this goes a little too far.

I think that is a good, healthy sign, and part of a healthy democratic process. And we will evaluate these statements thoroughly and fully and incorporate many of them in our effort to mark-up and improve the legislation.

I wish we could continue, because there are other questions that could usefully be pursued, but we have been here past the allotted hour, and so I would like to thank you again for your participation.

And with that, our hearing is adjourned.

Thank you.

[Whereupon, at 4:44 p.m., the hearing was adjourned.]

[The following information was subsequently received for the record:]

STATEMENT OF THE INSTITUTE OF SCRAP RECYCLING INDUSTRIES, INC.

The Institute of Scrap Recycling Industries, Inc. (ISRI) is pleased to have this opportunity to present its views on S. 1884. ISRI represents over 1,700 processors, brokers, and consumers of scrap metal, paper, glass, plastic and textiles, and suppliers of services and equipment to the industry. ISRI member firms, all private, profit-oriented businesses, recycle over 90 million tons per year. As a result, these materials never enter the solid waste stream in general or became municipal refuse in particular—instead they become raw materials and, ultimately, new products.

Where the goal of S. 1884 is to promote markets for recyclables, we applaud the authors and their foresight. The bill recognizes that the most significant hurdle to recycling is not collection—which is growing—and is not processing, which is already in place. The major problem is demand. Demand must increase if recycling is to expand.

The questions before the Subcommittee today come down to three: 1. Which materials can be diverted from the existing solid waste stream for recycling? 2. What are the markets for those materials? and 3. What is the role of the Federal government, in particular the Department of Commerce, in developing new markets?

These three questions are predicated on a distinction which is not evident in the pending legislation, namely that there is a significant difference between solid waste destined for disposal and recyclables destined for reuse. Before addressing S. 1884, it is imperative that we all speak the same language.

One of our most serious concerns with S. 1884 is its reliance upon definitions which have never before been applied to recycling, which could distort existing recycling if left uncorrected, and which need to be altered in the interests of the goals set by its authors.

The bill defines "municipal refuse" as including all non- industrial recyclables—most of which never enter the solid waste stream such as automobiles, durable goods, construction scrap, non-ferrous scrap and more. These commodities—which is what they are—already have vibrant markets and are consistently reused. Over 50 percent of the iron, steel, lead, and stainless steel made in the United States—over 60 million tons—is derived from scrap. Nearly 50 percent of copper production—2 million tons—is derived from scrap. 33 percent of aluminum production is derived some scrap, nearly 3 million tons of recyclables which are made into new products. Clearly, we are not talking about "refuse" here. The term refuse implies disposal—a complete lack of value. Yet the materials covered by the bill's definition of "refuse" include extremely valuable materials. It is imperative that the bill address recycling in terms which have meaning in this particular field, and not in terms which distort existing recycling. We attach draft language which may assist the Subcommittee.

To turn to the first critical question, what materials can be diverted from solid waste for recycling? There are markets now for over 90 million tons of material annually —but can more metal, paper, glass, plastic and textiles be recycled? Of course, but we need to stimulate demand for those products made from such inputs. And the way to do that is not to provide incentives to processors or mills, and is not to provide incentives to fabricators, rather the key is each of us, the public which consumes finished goods. If we demand recycled content and recyclable goods, then such goods will be provided. Thus, the ultimate consumer—us—needs information about the content of the goods we

buy, needs a way to know where he can obtain recyclable and recycled goods and, if an incentive is to be provided, it perhaps it should go to the real decision makers, the consuming public.

The diversion of materials for recycling is impeded where the manufacturer has not designed his products for recycling. The practice of mixing resins in the manufacturing process has the effect of rendering many plastic materials non-recyclable. Similarly, the recycling of many goods is prevented by the addition of toxic materials which pose a threat of release during normal processing.

The pending legislation would address some of our concerns regarding the recyclability of manufactured articles, but needs strengthening. Under Section 15, entitled "Review of Product Specifications," we urge the Subcommittee to add a new subparagraph:

"(4)—"Provide such information and technical assistance as may be necessary to remove barriers to recycled goods through the standard-setting process, and publish the results, if any, in the Federal Register, along with the names of any standard-setting process which bars recycled goods."

The existing section identifies barriers to recycling, but does not take the next step and assist manufacturers in removing them or inform the public where barriers do exist.

Similarly, we are concerned that manufacturers are not included in the section regarding "recycling advisories" on page 10, line 16. These advisories are to be issued to local governments and recyclers whenever a recyclable commodity is found to have contaminants or other properties which impede recycling. But the manufacturer, who has the ability to change his product and remove the impediment to recycling, receives no notification. We urge the Subcommittee to correct this and add a similar new provision on page 11, between lines 6 and 7, as follows:

"The Secretary shall also issue a recycling advisory to the original manufacturer of the product in question and shall publish in the Federal Register a list of those manufacturers who have received an advisory under this Section, and the affected products; the Secretary shall update the list from time to time, but not less than once a year, and shall remove from the list any manufacturer whose products no longer require an advisory."

We believe that these changes will help to ensure that fewer materials will require disposal in the future.

Thus, in the matter of markets, we must do all we can to stimulate them, and the bill has some good provisions in this regard. First, Section 10 would expand the Commerce Department's export role. At a time when the recently-agreed upon Basel Convention on Transboundary Shipment of Hazardous Waste is available around the world to protect domestic industries from a free market in recyclables, we need the Commerce Department's strong hand to enforce existing trade agreements. For instance, we understand that the European Economic Community is considering Basel implementation which would insulate member countries from international competition for scrap; Canada and Australia are allegedly considering similar approaches. All three would probably violate the General Agreement on Tariffs and Trade.

But it is essential to realize that the scrap export market is already in existence. For example, over 12 million tons of ferrous scrap were exported in 1989. Nothing should be done to tamper with or upset these markets. Government action should advocate increased recycling both domestically and in the export field—the key word is increased.

In the same regard, however, it is essential that Congress keep clearly in mind the distinction between waste and scrap. Any movement to restrict the export of waste from the U.S. should not reach inappropriately to control the export of scrap. Waste would be exported for disposal and that requires appropriate action if so desired, but scrap is exported for recycling and it should not be regulated as a waste.

In addition, the labeling provisions in Section 8 would help increase markets, but simply labeling as to whether or not a given article is recyclable is not sufficient. The label should include the other half of the equation, namely the recycled content of the goods. Consumers who purchase goods based on recycled content would thus have more information to base their choices on. In addition, recyclability under Section 8 should be determined based upon whether or not the article in question contains toxics which could escape during recycling or processing and threaten continued recycling. If so, then a "recyclable" label should not be granted.

The matter of recyclability of constituents is critical to the labeling process. While the bill does not cover durable goods, they raise an important point. For example, how would an automobile or a major appliance be labeled? Would each component have to be recyclable? Or would some standard for overall recyclability be in effect?

And while it seems reasonable to label based on the "principal constituent," that system fails in many instances. For example, if the principal component of an automobile is steel, the marginal presence of cadmium on selected bolts as a corrosion preventative could jeopardize the recycling of the automobile. This, despite the recyclability of the "principal constituent," such labels could be more deceiving than the present situation. More thought is needed in this area.

There is no need for governmental activity in regard to price reporting. There is a well developed daily—in fact instantaneous where needed--reporting system that has worked efficiently and effectively for years. Indeed, most governmental action in this area recognizes these data sources and utilizes them for such purposes.

The Federal procurement program laid out in Sect ion 9 would also be very helpful, but we are concerned that the measure has given agencies too many ways in which to avoid procurement of

recyclables. A recent GAO report requested by Senator Sasser pointed out that few agencies comply with RCRA's procurement program because of the same "loopholes" in existing law. These similarly drafted provisions can be found on page 27, line 20 of S. 1884. We thus urge the Subcommittee to allow as few loopholes as possible in the new Federal procurement program; we would suggest that there be no exclusions from the procurement of recyclables except for lack of availability or significant price differential based on an agreed-upon percentage.

Is it to be assumed that the procurement standards requirement for "recyclable content levels" reflects the given percent for each item covered or does it refer to the overall procurements for the agency during the course of the year? There is need for precision on this subject.

In one area we strongly disagree with the pending legislation. Specifically, Section 5 of the bill would have the Commerce Department preempt the existing, consensus specifications, grades, types, and test methods of the recycling industry in favor of the Department's own. For over sixty years, the scrap industry has set specifications —agreed to and adhered to by buyers and sellers—for ferrous and non-ferrous metals, paperstock, and other recyclables. For the Record, I enclose a copy of ISRI's existing specifications. These have withstood the test of time and help promote the recycling of 90 million tons of materials per year. Why the Subcommittee would want to tamper with these specifications is a mystery to us.

Instead of preempting specifications that work, we urge the Subcommittee to direct Section 5 to those commodities for which types, grades, specifications, and test methods do not already exist. After the Secretary of Commerce has determined that none are available for a given recyclable or class of recyclables, then he should provide advance notice of proposed rulemaking in the Federal Register, and proceed to set, by rule, types, grades, specifications and test methods if industry cannot respond with its own.

This would be a far more workable and less costly undertaking than that proposed in the bill as introduced. We strongly urge your favorable attention to this proposed change.

In addition, we urge the Subcommittee to replace the use of the words "refuse" and "waste" with the words "recyclables" and "scrap" wherever they are used in the bill except where the term refers to materials destined for disposal. As mentioned at the outset, recyclables and scrap are neither refuse nor waste; these changes are critical if H.R. 4942 is to eliminate possibly serious confusion on that point.

The answer to the third key question—what is the proper role of the Federal government—can be found by summarizing what we consider the positive aspects of H.R. 4942 to be: 1. promotion of increased exports and domestic demand; 2. labeling as to safe recyclability and recycled content; 3. issuance of recycling advisories; 4. identification of barriers to recyclables in manufacturing standards.

We believe the Commerce Department could be of help in these areas were Congress to direct them to carry out these functions and we hope the Subcommittee will give these aspects of S. 1884 priority attention.

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